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## MEDICAL PRACTICE ON LEVEL FOUR

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THE ninety-seventh annual meeting of the Minnesota State Medical Association is a significant occasion in significant times—but it is obvious now to all of us that history has not stopped long enough to allow us to catch our breath.

We are on level four of our cultural development and, in many ways, we are unable to cope with the discoveries that led us to levels two and three.

"What is level four?" you may ask. "How did we get there and where is it?"

Customarily we reckon time in years or centuries. We may stop and reflect that we are now halfway through the twentieth century. But the students of cultural growth tell us that we have developed by stages . . . according to the time it has taken us to discover that we could turn the sun and the fossilized products of the earth and, finally, matter, mysterious, formulae-ridden matter, into energy for use in supplying our needs.

Our struggles to capture free energy have brought us to level four, the here and now. It's the mutable, shifting, disconcerting, challenging present that alternately fills us with optimism and despair. It is a state of mind and a state of culture. It is—and not incidentally—the level on which we are trying to keep our discoveries from destroying us.

For it is inevitably true that our possibilities have outdistanced our needs, and our knowledge is too far ahead of our reason.

Medical science has established its own peaks and plateaus on this level four of atomic living.

We know that the foundations for medical advances were laid, in many cases, before the first atomic explosion catapulted us onto level four. But they were waiting to come into fruition. Now we have the dual prospect of longer and longer life or immediate mass suicide. Will the life-lengthening discoveries of science be cancelled out by the life-extinguishing discoveries of science? Or will man's greater maturity, that longer life is bringing, be able to shift the direction of our discoveries into channels of greater, more productive and pleasanter living?

Medicine must assume its responsibilities in this crisis of scientific, sociological and economic development, if the outcome is to be a fortunate one.

And to gauge those responsibilities, we must look back, across the years, to a time when life was simpler because so many of its consequences could safely be termed "inevitable," and so many of its problems, "insoluble."

Our general knowledge and, more especially, our scientific knowledge have changed our lives more in the past twenty years than in the previous fifty—more in that fifty years than in the previous two hundred. We may then, for all practical purposes, take the first half of the twentieth century as our quantity X.

In that time we have reaped the rewards of the germ theory of disease, for, with chemotherapy and public sanitation, we have all but mastered many disease micro-organisms—as significant a development as stone age man's successful battle with external organisms—the animals that preyed upon him until, with superior intelligence, he outwitted them.

Presidential address given at the annual banquet of the Minnesota State Medical Association, Duluth, Minnesota, June 13, 1950.

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The doctor of yesterday, who hurried to his patients with about equal amounts of sympathy and science, was welcomed by the anxious families, although they knew his limitations almost as well as he knew them, himself. But he was there, a friend and confidante, who yielded with them to the inevitable, when his meager science failed.

But the doctor of today and, with greater truth, the doctor of tomorrow, is welcomed by the anxious families because he is the master of a mysterious science, a twentieth century worker of miracles who is not expected to yield, but to conquer the inevitable.

Thus, our responsibilities as doctors have become greater . . . the further we crowd back the barriers of disease and death, the further we are expected to push them. And, at the same time, more is expected of us as interpreters of this science, as leaders in the thought patterns that are emerging from scientific discoveries that constitute the very core of our civilization.

In administering the heady potion of longer living, we have incurred an obligation of helping to direct the use of these added years and to form logical answers to the questions that stand between man and a clear title to his new longevity.

Science has multiplied upon itself, like the mold of penicillin develops in a culture tube. Discovery has spawned upon discovery. One man has supplied the clue to another's experiment and that, in turn, has led to yet another development . . . as exemplified by Dr. Banning's idea for insulin, prompted by reading an article by Dr. Barron of Minneapolis—or the investigations of Whipple, which were followed by the work of Minot, Murphy and Castle and finally of Cohn, and resulted in liver extract. And now we have a further development in pernicious anemia therapy—vitamin  $B_{12}$ —which, injected in such infinitesimal amounts as one microgram daily, will cause a remission in this once-fatal disease. Fleming, followed by Florey, was, of course, responsible for penicillin, now being produced at the rate of something like four thousand billion units per month in the United States.

And scientific discoveries have generated new forms of application. By continuous and flexible interpretations of medical science, Minnesota, for instance, has cut its tuberculosis death rate from 106.4 per 100,000 in 1900 to 13.8 in 1949.

Duluth represents a striking example of progress in sanitation. In the early years it had the

highest mortality rate in the cities of its class, as a result of typhoid fever. For a number of years now it has occupied a distinctive position in its freedom from this disease.

Within the span of my own life, I have observed medical science in headlong progress. I remember the ponderous static machine for the development of an unstable potential to energize a similarly unstable gas-filled x-ray tube, acquiring with these, if we were fortunate, an exposure on a glass plate comparable to that of Roentgen's. Similar in antiquity was the apparatus used in an assignment with the British Expeditionary Forces in the First World War, with equipment energized by an induction coil and, for interruptions of the current, electrodes separated in a champagne bottle! In the field of chemotherapy, the first administration of salvarsan was attended by procedure and preparation of major surgical proportions. Likewise, precisely prepared Dakin's solution was once accepted as the final answer to the control of sepsis in wounds. And there has been an ebbing of lay and medical confidence in the prevention of colds by antihistamines similar to the rejection of chlorine inhalation.

It may sound pretentious or provincial to say this, but, in Minnesota, the problems relating to science are perhaps at a high point in the nation. For here we have concentrated so deeply on their primary phases. I have recounted to you our progress in a few special fields of disease. Minnesota has distinguished itself, medically, through the endeavors of such men as Dr. Justus Ohage, who performed the first successful cholecystectomy in America; Dr. Charles Hewitt, pioneer public health worker; Dr. Edward Bockman, who introduced a new type of surgical suture . . . and . . . this is interesting . . . Dr. Hillard Holm, who performed one of the few successful operations separating Siamese twins.

I might remind you, too, of our record-breaking strides in maternal and infant health. And there begins the broad, general problem. We are giving the citizens of our state a head start in health. With low infant mortality figures, with subsequent control over communicable diseases and skilled corrective surgery, we are saving hundreds of persons who will eventually become geriatric problems.

In between, of course, there are broad areas for study and investigation. We need to turn our attention to the patient as a whole, not just as

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a person suffering from one or more particular maladies. As physicians, we should consider the subject of health as a whole, interesting ourselves in maintaining the individual's health as well as curing him of a disease.

And, too, there is the relatively uncharted field of body chemistry. Why does the body react so strangely to certain hormones, to emotional shocks, to the barely discernible scars of earlier illnesses? When we know, we may be in a position to add another twenty or fifty years to the average life span.

Always, concurrently with the question of "What can we do to extend life?" comes the question of "What will the added years mean?"

We have left the orderly, unalarming scientific patterns of the nineteenth century. We have ceased to regard the lighted areas of science as the only known world . . . instead we spend most of our time in the shadowy patches of near knowledge and the dark of unexplored territory. Our scientific creativity is no longer subject to the old accepted rules. Every day we make new rules for ourselves and, in so doing, we find that many times our previous thinking and experimentation fall into place and another pattern of progress is complete.

But, in the process, just as we have subjected every rule, every supposed truth to restudy, so have we abandoned our belief that progress is necessarily and automatically for the best.

Progress, we observe, is what we make of it. And nowhere is there a better example than in the development of atomic energy. This is progress, yes, but a double-edged progress that can add new dimensions to life or, wielded in reverse, will mean obliteration of all life.

Fissioning atoms are providing medical men with, among other things, such important tools as radioactive tracers, which are being put to use in the fight against cancer and are revolutionizing biology and medical research. The prospects for atomic energy . . . and for the newer explorations in hydrogen . . . are limitless, as we see them now. Or they may be strictly limited by the production of a few highly accurate, infinitely destructive bombs.

With the increased leisure afforded by mechanization and our highly complex industrial civilization, man has supposedly more time to think, to mature, to devote a larger portion of his life to the arts . . . and with the gift of twenty addi-

tional years . . . man should be approaching the most exemplary period of human history.

But can we hope for realization of this theory?

Probably not. For hasn't the machine superseded the man? Hasn't science outpaced conscience?

It would appear that our most perplexing and immediate puzzle is one of understanding. We must think our way to the formation of a philosophy sturdy enough and flexible enough to withstand the impacts of level four living.

The comprehension of the man who lives on level four does not seem adequate. He cannot understand even the relatively basic fundamentals of his own existence . . . and the prospect of lengthening life appears terrifying, instead of inviting, to him because he feels that in his later years he may be more vulnerable to the perils of an economically dependent existence.

What can we, as the practitioners and spokesmen of one scientific profession, do to help?

Our duties as physicians at this time are akin to our duties as citizens, it would seem to me.

I will not reiterate our continual responsibilities to become better doctors, to search for and retain the knowledge and skills we need to perform our scientific tasks to the best of our ability. We are inescapably aware of that necessity.

But, it is in the somewhat broader science of human relationships that our obligations sometimes fail to appear in sharp focus and personally applicable. We do not seem to keep an alert attitude in that field . . . to seize, as in medical science, upon an idea, a thought, the dawning comprehension of a truth and to build on it with our own interest and observation and experience; in short, to be as skilled in the epidemiology of sociological and political and economic diseases as we are in the epidemiology of physical disease.

I do not know why we fail so often here, but I assume that it is because we consider our lives well spent if we have given full devotion to our profession. And, while, categorically, we may divide this discipline into prevention, diagnosis and treatment, we do not realize that in the performance of this duty, we are bringing other duties upon ourselves which cannot be postponed or evaded.

First, let's not add to the mystery surrounding science. Let's explain scientific advances in simple terms to our patients. Let's help them to understand their physical selves and to have a

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general idea of the workings of the human body and, if they are ill, to understand why they are ill, how seriously ill, and what is being done to remedy the damage done by malfunction or micro-organisms.

Through understanding of one science, the people with whom we come in contact will be less unwilling to attempt at least a partial, outline understanding of other sciences that affect and influence their lives. With comprehension of the basic principles of all, will come a more satisfactory adjustment to environment, a firmer stand on the shifting grounds of atomic level four.

Then, we must initiate a re-evaluation of the longer life span that is unfolding for us all. Is it a valuable gift or a Pandora's box that will loose great economic and social evils in the world?

Its potentialities are all for good. Coupled with the expanding educational system—which has enabled 40 per cent of our children to go through high school and 7 per cent through college—longer life should mean better, happier life—more expressive and more complete.

We're being better trained and educated, mechanized industry gives us more leisure and more luxuries for our leisure, and we have a longer time in which to enjoy the good things of the world. Why then, has the assurance of longer

life made us so uncertain of our abilities to utilize it?

It is partly because the economically self-sufficient individual has all but disappeared from twentieth century, level four America. We are dependent upon each other, and yet we don't know how to be profitably dependent upon each other.

We are looking for an impersonal leaning post—like the government—fearful of trusting ourselves or each other.

This, then, is the crucial decision point we reach in mid-twentieth century. As physicians, we can and must help to turn the tide of public thinking.

Nor can we rely on the easy, status quo attitude of "peace or plenty or tolerance in *our* time." We must face our problems now... for the heritage we pass on should not include the fears and distrust and political shiftings of today.

These are the causes—understanding, and the development of a self-reliant and mutually helpful philosophy—to which we must assign ourselves. We must be just as fanatical about good as the Leninists are fanatical about evil. We must, to paraphrase Lenin himself, find within our ranks people who will devote not just their spare evenings, but the whole of their lives, to the advancement of the principles we have chosen to abide by.

## COMPOUND F SYNTHESIZED

A synthesized adrenal hormone chemically similar to cortisone and known as Compound F is proving effective against rheumatoid arthritis, researchers of the Mayo Clinic, Rochester, Minnesota, report.

Announcement of the synthesis of Compound F was made recently by a pharmaceutical company (Upjohn Company, Kalamazoo, Mich.) The company did not say what this synthesis will mean in terms of production, other than to emphasize that the amount of Compound F available does not allow distribution for other than limited clinical testing at the present time.

The report of trial of Compound F against rheumatoid arthritis was made by Dr. Howard F. Polley (one

of the group from the Mayo Clinic who originally reported the effects of cortisone and ACTH against the disease) and Harold L. Mason, Ph.D., in the (August 26) *Journal of the American Medical Association*.

"Significant antirheumatic activity was possessed by 17-hydroxycorticosterone (Compound F)," they say. "Minor structural alteration from cortisone occurs in 17-hydroxycorticosterone. Our supply in the last year has permitted trial on one patient, a woman forty-nine years old, whose severe rheumatoid arthritis had been present three years and who had responded well to cortisone and to ACTH."

## SURGICAL TREATMENT OF MITRAL HEART DISEASE

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THE NEED for a safe technical approach to the surgical treatment of chronic valvular disease of the heart has been recognized for many years. The idea is not new, as the surgical treatment of mitral stenosis was first suggested by Brunton<sup>8</sup> in 1902. In 1912, Tuffier<sup>22</sup> attempted actual dilatation of a stenosed aortic valve. In 1929, Cutler and Beck<sup>4</sup> summarized their personal experiences in the surgical treatment of 8 cases of mitral stenosis, the mortality for the group being 83 per cent. Since that time much progress has been made in the field of thoracic surgery. These advances, combined with recent developments in chemotherapy and the sound present-day concept of the prevention and treatment of shock minimize many of the former hazards, and should permit reapplication of certain methods with significant reduction of mortality.

Before entering into any discussion of a new surgical procedure or a new surgical approach to an old procedure, one must justify somewhat any increased mortality in the beginning. It is to be expected that as one operates in or around the heart, there will be a mortality. As a matter of fact Elliot Cutler<sup>5</sup> stated that though the majority of his patients died following operation, it was his feeling that the experiences gained would be of great benefit in future reduction of mortality. It may be recalled that the mortality figures in early operations on the stomach now considered relatively simple, as collected by Dr. W. W. Keen<sup>12</sup> for his Cartwright lectures, were quite high. Following the first twenty-eight gastrostomies collected in 1875, all the patients died, and in a series of thirty-five gastroenterostomies in 1885, the operative mortality was 65.7 per cent. Moreover, it took years for these figures to improve. In 1884, the mortality for gastrostomy was still 81.6 per cent.

It is not our intention at this time to present an extensive collected series of personal cases in which operation was performed for mitral steno-

sis. Indeed, it is our intention as a combined team of surgeons and internists to present some of the material that has been accumulating in the literature. It is our main intention to present some of the indications for operation, the methods used and some of the results.

Without question, there is no necessity of stating that the clinical evaluation of any patient by an experienced cardiologist is a must. In the past years, medical management of mitral heart disease has become a clinical laboratory picture, and I am sure all of you know the methods that are used currently. There are certain basic questions that must be answered before operation is indicated:

1. Does the patient have evidence of active heart infection? The report of Hench and his co-workers on compound E may indicate that perhaps in active infections the treatment of choice is compound E.

2. Is the deformity of such a nature that the patient can survive a normal span of life with moderate activity? Perhaps catheterization studies of the heart, and lung biopsies may indicate the value of an operative procedure. In co-operation with Dr. John LaBree at the University we have been attempting to correlate intracardiac pressure studies with lung biopsies. Will a surgical procedure which permits more blood to reach the left ventricle, be of benefit to patients in whom arteriosclerosis of the lungs is already present, is a question that still remains unanswered. Our studies are still too few to warrant any definite conclusions on this point.

3. When shall a patient be subjected to operation, if at all? Shall we wait until the patient is a poor operative risk, when he is in failure, or when severe hemoptysis and dyspnea are present?

4. Is mitral regurgitation worse than a mitral stenosis? Is it a gradual regurgitation that is important, or are we to believe that regurgitation is an unimportant factor completely? Is merely the relief of pressure in the left auricle the important thing, so that an interatrial septal defect would suffice?

All these questions still remain to be answered. Were we to have a tool by which mitral stenosis

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could be produced consistently in an experimental animal, we are sure that most of the questions could be answered on a physiologic basis. All the procedures that will be described in the future paragraphs would then be subjected to critical evaluation. In the meantime, until a method is obtained, human experience will be our sole method of evaluation.

### Surgical Considerations

#### Mitral Valve

The methods that we have been using in the approach of the problems of mitral stenosis seem to take one of the following three courses:

1. Methods of direct surgical attack upon the stenotic valve.
2. Methods of relieving the associated pulmonary hypertension.
3. Methods of by-passing the stenotic mitral valve.

#### *Methods of Direct Surgical Attack Upon the Stenotic Valve*

1. *Simple incision of a valve cusp.*—Cutler, Levine and Beck<sup>4</sup> first attempted this procedure in 1924. Their results were not encouraging. However, it must be stated that we have since made some advances in pre- and postoperative care and, perhaps, if nothing else, these authors have given us some valuable experience that is being used today. Anatomically, the stenosed mitral valve can be reached by a suitable instrument by way of either the left ventricle or left auricle. It is not yet entirely clear as to which is the better approach.

2. *Excision of a portion of the mitral ring.*—Cutler, Levine and Beck<sup>5</sup> also reported some cases in which a piece of the fused valves was removed, since it was felt that the only hope in mitral stenosis was to replace it by a regurgitant type of lesion. Results seem to indicate that although there has been some objection to this procedure, there are indications for it. Smithy,<sup>18</sup> this year, reported seven cases subjected to eight operations with two deaths, a mortality of 28.6 per cent. He has approached the valve and resected a portion by means of the ventricle and the auricle. His preference at the time the paper was published was by the transventricular method. It is interesting to remark that one of the successful results is a technician now working in a Saint Paul Hospital. In a recent conversation, she stated

that she would be willing to convince anybody of its value to her. Time will provide the answer as to how well these patients will carry on with their increased, though limited, regurgitation. It must be remembered that Powers,<sup>15</sup> in an attempt to produce a mitral stenosis in dogs and then resect the stenosed valves, stated that in all probability, a sudden regurgitation is very harmful. He suggested that a much better approach to the problem would be had if a gradual increase in the amount of reflux of blood into the left auricle were obtained.

3. *Digital dilatation of the stenotic orifice.*—Souttar<sup>20</sup> in 1925 first performed this procedure with success in one case. Recently Bailey<sup>6</sup> and his co-workers have performed three such dilatations with one success. Death within three days in one of the cases was due to clotting at the torn commissures.

4. *Valvuloplasty.*—Harken<sup>9</sup> has coined this term for a method which involves the resection of portions of the valve ring at the commissures. It is his feeling and that of many others, that the antero-lateral and the postero-medial commissures should be resected. A selective type of valvular resection is thus done, and regurgitation of blood from the aorta into the ventricle is thus prevented.

5. *Commissurotomy.*—Bailey<sup>6</sup> and his co-workers have recently suggested that, instead of resection of a piece of the fused valves, a slit into the antero-lateral commissure, and at times into the postero-medial commissure, be done. This is done under direct digital control, a procedure which he has called commissurotomy. Ideally, surgical intervention should restore perfect valvular action; then the correction of obstruction in the light of the associated degree of insufficiency that is immediately produced would not come under consideration. He has recently reported thirty patients with six deaths. In twenty-one, the results have been satisfactory to date, both subjectively and objectively as measured by cardiac catheterization studies.

In summary, therefore, of all the procedures used in direct attack on the mitral valve it would seem that either resection or cutting of the commissures is a valuable procedure. If surgery is considered, either one of these two methods should be contemplated.

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### *Methods of Relieving the Associated Pulmonary Hypertension*

The interesting observation first reported by Lutembacher, that patients with mitral stenosis who have a co-existing patent interatrial septal defect, do not usually suffer from paroxysms or pulmonary edema, has led to the suggestion that such a defect might be created artificially in cases of mitral stenosis. Harken has created a defect in humans by means of a specially devised valvulotome. Blalock<sup>2</sup> has attempted this procedure, and used it in cases of transposition of the great vessels. One of us (I.D.B.) experimentally used the approach of anastomosing the auricular appendages, either directly or by means of a vein graft.<sup>17</sup> By this method the interatrial defect, which is in effect produced, can be made under direct vision and can be broken down immediately, should the condition of the patient warrant it.

Sweet<sup>19</sup> has used still another approach. He has anastomosed the superior segment branch of the inferior pulmonary vein to the azygos vein, thus creating a communication between the systemic and pulmonary circulations. Whereas the pulmonic circulation is a closed circuit, the systemic venous return is not; thus the pressure within the left auricle can be distributed over a greater area.

*Methods of By-Passing the Stenotic Mitral Valve*

In 1913, Jeger<sup>11</sup> thought that a valved vein might be grafted to serve as an anastomosis between the pulmonary vein and the left ventricle and thus adequately side-tracking the stenotic mitral valve. Recently Gross's efforts at using grafts of vessels may in the future be an answer to this problem.<sup>8</sup> Rappaport<sup>16</sup> has recently also implanted the tip of the auricular appendage into the ventricle. By this method the stenotic valve will be by-passed.

In summary, it might be said that methods of by-passing the stenotic valve are still very much in the experimental stage and should be discarded as a procedure in humans.

### **Indications and Selection of Patients**

Indications that have been put into the literature are at this time more verbal than salted with experience. We are not saying this in a critical way, but rather to suggest that perhaps more operative procedures should be done in an effort to obtain the true criteria for operation. Harken<sup>9</sup> suggests a preliminary classification of patients into three groups:

*Group A*—This group includes patients with a low resting cardiac output which is unchanged or even decreased on exercise and with an elevated pulmonary-artery pressure. Signs of right ventricular failure may appear in addition to the pulmonary symptoms. For such patients, the operation of "valvuloplasty" may be helpful since the available evidence indicates that mitral obstruction is of major importance in this clinical condition.

*Group B*—In this group are patients whose resting cardiac output is within normal limits and usually increases with exercise. In spite of the adequate cardiac output, they often have as severe pulmonary symptoms as those in Group A, and the pulmonary-artery pressure is also elevated. The pathophysiologic mechanism in these cases may be a predominance of mitral regurgitation over the element of stenosis, or it may be that a high left auricular pressure maintains flow through narrowed mitral orifices to an adequate level. Secondary organic pulmonary vascular changes may also occur as an important element in producing the pulmonary symptoms. These patients may be benefited by the production of an artificial interatrial septal defect, which will decompress the left auricle and the pulmonary venous hypertension, especially at high peaks during periods of strain. This operation is probably not suitable for patients who have had right ventricular failure because of the added burden produced in the right ventricle by the recirculation of blood through this chamber and the pulmonary circuit. Such an operation may be contraindicated for patients in Group A, in whom too great a proportion of blood may be diverted through the shunt, and with decreased left pressure, blood flow through the stenotic mitral orifice would be reduced still further to a level incompatible with life.

*Group C*—This category includes patients whose incapacitating symptoms, particularly attacks of pulmonary edema, are associated with rapid heart action that cannot be controlled by medical measures. The cardiac output may be normal or low, and the pulmonary-artery pressure elevated. The patients are not deemed suitable candidates for either of the operations mentioned above because of the extent and severity of their disease. The occasional patient with mitral stenosis who has attacks of severe chest pain, especially "hypercyanotic angina," may also

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fall into this group. For these patients, a palliative procedure may be the removal of the cardiac sympathetic accelerator and afferent nerves.

Glover and Bailey<sup>6</sup> classify the indications as follows:

1. Most favorable group:
  - (a) Excessive fatigability.  
Increasing exertional dyspnea.
  - (b) No rheumatic activity.  
Normal sinus rhythm.  
Lesion predominantly stenosis.  
Evidence of significantly increased pulmonary hypertension.
2. Less favorable group: The above plus
  - (a) Recurrent bouts of hemoptysis.
  - (b) Arterial embolic phenomena.
  - (c) Auricular fibrillation without failure.

Hemoptysis in more than amounts necessary to stain the sputum is of grave import. Wolf and Levine<sup>23</sup> point out that in their series of cases the average duration of life following the onset of severe hemoptysis is 35.5 months. Levine<sup>14</sup> stated that the average duration of life following the initial attack of congestive failure is 4.6 years. The development of auricular fibrillation is usually permanent and irreversible. In this state thrombus formation not infrequently occurs along the endocardium of the dilated and relatively immobile auricular walls. Some 75 per cent of these occur within the lumen of the auricular appendage (left), a common site for the origin of arterial embolization.

Bailey and his co-workers contraindications would be: (1) active rheumatic infection; (2) presence of superimposed subacute bacterial endocarditis; (3) cardiac failure uncontrollable by medical means; (4) presence of marked associated mitral regurgitation or other valve (aortic) deformities.

Smithy<sup>18</sup> states that the ideal candidate for operation is a patient in the younger range of years having a high grade of mitral stenosis, without evidence of more than minimal involvement of the other valves, and with severe disability from mechanical obstruction but little or no evidence of cardiomegaly, hepatomegaly, venous distention, and chronic fluid retention. Disability in cases of this nature is characterized by a definite group of complaints common to each: chronic weakness and fatigue, dyspnea on mild exertion, orthopnea with acute nocturnal exacerbations, per-

sistent, exhausting cough with or without hemoptysis, palpitation, and periodic bouts of acute pulmonary edema. In the absence of much cardiac enlargement, venous engorgement, hepatomegaly, and peripheral edema, he considers such patients to be suffering almost entirely from mechanical obstruction to the flow of blood through the heart.

It is apparent from this discussion of the indications and contraindications that the internists and surgeons should get together soon and a preliminary effort at determining the indications for surgery, which later may be modified, should be made as the surgical patients are evaluated post-operatively.

### Auricular Ligation for Recurrent Embolization

One of the most common causes of peripheral arterial emboli is rheumatic mitral stenosis. This disease occasions a slowing of blood within the left atrium and left auricular appendage. This stasis of blood, coupled with auricular fibrillation, leads to frequent thrombus formation in the left atrium. These thrombi are the most common antecedents of peripheral emboli in rheumatic heart disease. Our associates, Drs. Chester Thiem, Ben Sommers, and John Noble<sup>21</sup> have recently studied a series of cases for location of emboli within the heart of rheumatic mitral disease. Their figures indicate that the most common source of thrombi is in both auricular appendages. Previous to this study, we had ligated three left appendages in patients with recurrent embolization and mitral disease.<sup>1</sup> It is our feeling that this procedure may prove to be a very useful one in the prevention of future embolization. Our indications at present for doing this procedure are as follows:

1. The patient should be fifty-five years of age or younger.
2. There should be no evidence of severe coronary disease by clinical study and electrocardiogram.
3. The patient should not be in congestive heart failure at the time of operation.
4. The patient should have had evidence of embolic phenomena.
5. There should be no evidence of subacute bacterial endocarditis.

Perhaps the anticoagulants may control the formation of future thrombi, but certainly they do not dissolve any thrombi that are already pres-

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ent in the auricular appendage. As a matter of fact, we would like to suggest that both auricular appendages be ligated.

### Aortic Stenosis

An additional word at this time on relief of the aortic stenosis associated with mitral disease. Attempts have been made in the past to dilate the aortic ring when stenosed. Recently it has been reported in the American Surgical Association by Glover<sup>7</sup> and his co-worker that a section of the aortic ring has been accomplished by means of a knife placed down through the carotid artery in the neck and impinging upon the aortic valve. At the present time it might be stated that we are not clear as to the indications and contraindications for such an operation. However, it is our belief that operations of this type should and will be done in the immediate future as soon as the indications are clear.

### Summary

In summary, therefore, it is our belief that operative procedure for mitral stenosis should be carried out. A more definite set of indications and contraindications should be established. Until the advent of the experimental production of mitral stenosis is with us, human material should be used and the results compiled and information obtained for future reference.

### Addendum

Since this paper was submitted for publication, two patients with mitral stenosis have been op-

erated upon successfully. In both instances the mitral orifice was enlarged by way of the left auricle.

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### COURSE IN PROBLEMS OF HUMAN INFERTILITY

Problems of human infertility will be discussed by gynecology specialists at the University of Minnesota's Center for Continuation Study Thursday through Saturday, September 28-30. The three-day course is open to all physicians in the state.

Fields to be discussed at the continuation course will cover such topics as the physiology of ovulation, various endocrine studies, the psychosomatic effects of sterility and artificial insemination.

Among the visiting faculty members who will direct some of the sessions will be Dr. Isador C. Rubin, clinical professor of gynecology, New York university college of medicine, New York City, and Dr. Fred A. Sim-

mons, research assistant in gynecology, Harvard university medical school, and assistant in surgery, Tufts university, Boston.

Dr. Warren O. Nelson, professor of medicine, anatomy and histology, University of Iowa college of medicine, Iowa City, is another of the out-of-state specialists who will head discussion groups.

Present from the staff of the Mayo Foundation at Rochester to give one of the lectures, will be Dr. Lawrence M. Randall, professor of obstetrics and gynecology.

Also leading parts of the meeting will be Dr. John L. McKelvey, professor and head of obstetrics and gynecology at the University.

## THE SIGNIFICANCE OF THE ISOLATED PULMONARY NODULE

DAVID V. SHARP, M.D., and THOMAS J. KINSELLA, M.D.  
Minneapolis, Minnesota

THE INCREASING USE of chest roentgenograms in community surveys and routine physical examinations has confronted physicians with a variety of unsuspected chest conditions including the isolated pulmonary nodule. This condition, variously designated as the "pulmonary coin lesion," the peripheral nodule, and commonly dismissed as a "tuberculoma," presents diagnostic and therapeutic implications far out of proportion to the seemingly insignificant nodule itself.

We have studied, over a period of the past four years, a total of ninety-six such nodules in patients from twelve to eighty-five years of age. The sexes were about equally divided and all were of the white race except one Indian girl twelve years of age.

These nodules differ widely in appearance. They have been found in all segments of the lung with their location of no special diagnostic value. Their size varies from 1 to 4 centimeters in diameter, thereby excluding the large bronchiogenic carcinomas and the smaller calcified areas (Gohn tubercles). They may be round or ovoid in contour with edges smooth, fuzzy or irregular. Their density varies from very soft infiltrates to extremely dense nodules with or without calcium deposits. The presence of calcium does not establish the benign or malignant nature of the process. The degree of calcification discernible on x-ray films, as Bloch<sup>1</sup> has shown, is indeed arbitrary and is largely dependent upon special x-ray techniques for its demonstration. The growth of a nodule is not necessarily a sign of cancer for it has been noted in fibroma, hamartoma, adenoma and the granulomas, while lack of growth may occasionally be noted in carcinoma over many months. All nodules observed in this series were entirely asymptomatic with two exceptions (bleeding from pulmonary cysts).

When confronted with a patient whose x-ray films reveal an isolated pulmonary nodule, careful studies should be instituted at once to attempt to determine the nature of the lesion. A careful history and complete physical examination should be supplemented by special diagnostic procedures as indicated. An exhaustive search must be made

for primary tumors elsewhere and for underlying disease which might produce a local lung lesion. Laboratory studies of blood, urine, sputum, gastric washings, bone marrow, et cetera, may at



Fig. 1. An Isolated Pulmonary Nodule.

times give a clue to the etiology of the nodule. Results to date in attempting to establish a diagnosis in an obscure pulmonary infiltration have suggested the desirability of skin testing particularly for tuberculosis, histoplasmosis, blastomycosis, coccidiomycosis and echinococcosis disease.<sup>2</sup> Originally some, at least, of these infections were considered of local interest only, but more recently the migration of large numbers of people and modern air travel have rapidly dispelled our ideas regarding a so-called local habitat of certain yeast and fungus infections. Our experience from the studies in this series would seem to indicate, however, that skin test reactions possess suggestive rather than absolute diagnostic value in the case of isolated pulmonary nodules.

The relative frequency of tuberculosis and its tendency to involve the lung and to produce nodular areas of disease must place it high on the list of suspected causes of such nodules. Sputum, if any, must be carefully studied for mycobacterium tuberculosis. In its absence, bronchial secretions or washings obtained bronchoscopically or gastric washings may be studied cul-

Read in symposium on Diseases of the Chest, sponsored by the Minnesota Chapter of the American College of Chest Physicians, at the annual meeting of the Minnesota State Medical Association, Duluth, Minnesota, June 12, 1950.

## ISOLATED PULMONARY NODULE—SHARP AND KINSELLA

turally or by guinea pig inoculation in an attempt to recover the organisms. However, the relatively high incidence of malignancy in this series (27.3 per cent) and the usual rapid growth of bronchial malignancy makes one seriously doubt the wisdom of delaying definitive action six or eight weeks for such laboratory reports. As these nodules, even if tuberculous, are frequently closed lesions, failure to recover organisms from secretions does not rule out tuberculosis.<sup>3</sup> The old idea that all granulomas and calcifications in the lung were the result of tuberculosis has definitely been disproven.<sup>5,7</sup> Our efforts to demonstrate pathologic yeasts and fungi from similar material have been quite disappointing. The presence of malignant cells in bronchial secretions is, of course, diagnostic, but small peripheral primary carcinomas and metastatic tumors do not throw off recognizable cells as regularly as carcinoma in the larger bronchi and, hence, positive cell studies in patients with isolated pulmonary nodules are but rarely found. Negative reports, however, do not in any way rule out the presence of a malignant tumor.

X-ray studies are valuable not only in discovering the nodule originally, but also in localizing its position and may, through special techniques or planigraphy, demonstrate calcification, fluid level, cavitation or other suggestive diagnostic information. Cavitation with or without fluid level may suggest a tuberculous abscess but may also be seen with other granulomas, in pulmonary cysts or even in malignant lesions. Perhaps the most valuable x-ray study may lie in a comparison of the recent with older films if available. Evidence of growth of the lesion is certainly an indication for its prompt removal. Conversely, lack of growth over a period of even a year does not prove the nodule to be benign. Certainly the common practice of recommending another film in three to six months has nothing medically to recommend it and could easily in the presence of malignancy seal the patient's doom.

While in the early portion of this series, we made extensive studies of all types listed in an attempt to gain information which might help us to arrive at a correct clinical diagnosis, we have, as a result of the experience gained by these studies, reached the conclusion that the only reliable and accurate diagnostic procedure is exploratory thoracotomy with excision and prompt pathological examination of the mass. When, with the lung exposed and in the surgeon's hand, it is

often impossible to accurately state the nature of the nodule, how can indirect studies be expected to furnish the answer?

TABLE I. ISOLATED PULMONARY NODULES.

	55
Proven	
Malignant	15 (27%)
Bronchogenic Carcinoma	11
Lymphosarcoma	1
Metastatic (Breast, Colon, Testicle)	3
Inflammatory	22 (40%)
Granuloma	
Echinococcus	1
Tuberculosis	1
(Proven)	6
(Suspected)	5
Unproven	
Benign Tumors	18 (33%)
Hamartoma	5
Chondroma	1
Adenoma	2
Fibroma	2
Bronchial Cyst	8
Undiagnosed Nodules	41
TOTAL	96

From this series of ninety-six nodules listed above, fifty-five have been definitely proven by surgical operation (forty-nine) or by medical means (six). We have accepted as final medical proof the positive bronchoscopic biopsy of malignancy or the progression of such a lesion to fatal termination, the recovery of tubercle bacilli or the demonstration of a proven primary tumor elsewhere. Fifteen (27.3 per cent) of the fifty-five proven nodules were malignant. Eleven were due to primary bronchiogenic carcinoma, one to a primary lymphosarcoma in the periphery of the lung and three to solitary metastatic nodules from carcinoma of the breast, colon and testicle. Eighteen (32.7 per cent) were found to be benign tumors of the types listed in the table above. The number of pulmonary cysts and hamartomas in this group is somewhat higher than in the average reported series. Twenty-two (40 per cent) of the nodules proved to be inflammatory lesions or granulomas. Formerly erroneously called tuberculomas under the mistaken idea that all were tuberculous in nature, we now know that a variety of infectious agents may produce them. Granulomas may vary widely in gross and microscopic appearance from an abscess, a blocked or inspissated cavity full of soft caseous material, through all stages of attempted healing to the very mature granuloma showing the concentric rings resembling the growth rings of a tree. The myth of the harmless "tuberculoma" which need not be disturbed is easily dispelled by viewing a few of these excised granulomas which are caseous areas either primary or secondary or blocked or inspissated cavities whose contents, often teeming with

## ISOLATED PULMONARY NODULE—SHARP AND KINSELLA

bacilli, only await bronchial communication to spread infection widely throughout the lung.

The microscopic picture of most granulomas of varying etiology is strikingly similar and the only positive proof of the tuberculous or other specific etiology of such a lesion is the demonstration of the specific organism from it. The number of proven tuberculous granulomas (six of twenty-two) is rather small for this reason. We have listed five others as suggestive of tuberculosis because of the clinical findings and microscopic picture in and about the nodule and have wondered if the preoperative forty-eight-hour administration of streptomycin may have been a factor in negative cultures reported in this group. To date, our attempts to isolate other organisms from a group of these nodules through the co-operation of the mycologists at the University of Minnesota and the State Board of Health have been disappointing, hence, the ten nodules of undetermined etiology. Perhaps studies with other techniques and media may reveal more in future specimens. The fact that some of these nodules unquestionably represent completely mature and burned out lesions must also be considered. The forty-one undiagnosed nodules listed represent a group of patients who have either not completed their work up or have refused or postponed exploratory thoracotomy as recommended to the physician.

There has been no surgical mortality or complication in this series of surgically treated patients. The usual procedure has been, at open thoracotomy, to excise the local nodule by means of a wedge resection and suturing the lung behind clamps while the pathologist is making his examination of the excised nodule. This technique has been preferred to local enucleation which works very nicely with hamartoma and a few of the lesions but which can lead to gross contamination if abscess or active tuberculosis is encountered. The procedure has been extended to segmental resection, to lobectomy or even to pneumonectomy as local conditions and the pathologist's findings warrant.

This experience and the published reports of others have convinced us that an accurate pre-operative diagnosis of the nature of an isolated pulmonary nodule is impossible in the vast majority of instances. Exploratory thoracotomy and immediate pathological examination provide the only accurate means of determining the exact nature of the lesion. The low calculated risk of such a procedure and the relatively high incidence of malignancy (27.3 per cent) in this series (40 per cent in other reported articles)<sup>2,4,8</sup> makes it the only safe and logical method of treating the isolated pulmonary nodule.

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## ARMY AUTHORIZES APPOINTMENT OF WOMEN DOCTORS AS RESERVE CORPS OFFICERS

Appointment and concurrent assignment to active duty as Reserve Officers of women physicians, dentists, and allied specialists, has been authorized, it was announced August 30 by the Department of the Army.

They will be brought on duty under regulations currently providing for the commissioning of male officers in these Corps. Some women did serve in the Army as physicians and technicians during World War II, but their commissions have expired and legislation permitting their commissioning expired in 1947.

As Reserve officers on active duty, these women will be given opportunities for clinical practice and advancement which are now available to male officers in comparable grades, Major General R. W. Bliss, Surgeon

General of the Army, pointed out. Appointments will be in grades from first lieutenant to colonel, depending upon age, experience, and professional qualifications. The pay, allowances, dependency and retirement benefits which accrue to male officers will apply to the women medical reservists. Women physicians and dentists will also draw the \$100 a month professional pay allowed above the base pay of their commissioned rank. They will be eligible for service in every type of military medical facility, with the exception of forward medical installations in combat zones.

General Bliss said his office had received numerous letters during the past year from women physicians desiring military service.

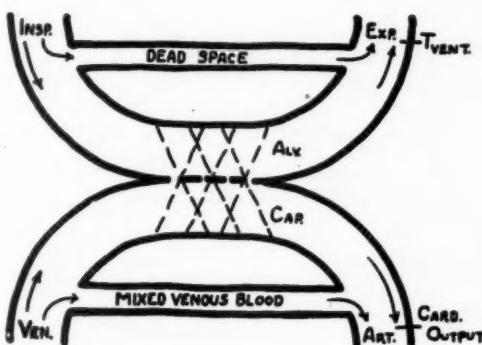
## CLINICAL DETECTION OF PULMONARY EMPHYSEMA FROM RESPIRATORY TRACINGS

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Minneapolis, Minnesota

**I**N THIS DISCUSSION, I should like to attempt to illustrate the irrationality of attempting to estimate pulmonary functional reserve or determine the cause of functional disability from any single measurement of respiratory activity. The respiratory system is more than a mechanism for moving air in and out of the body: air must be moved in order to ventilate terminal pulmonary alveoli, but the lung itself exists mainly to support a vascular bridge between the right ventricle and left auricle.<sup>4</sup> This vascular bridge, made up of nets of capillaries in the alveolar walls, must accommodate the greatly varying minute output of the heart in a manner quite different from that in which an increased flow is handled by the general circulation. As the flow across the pulmonary bridge increases the pressure, the rate of flow in the lesser vessels normally does not rise, but rather the blood diffuses out into previously unopened capillary beds where respiratory gas exchange may then take place in the usual leisurely manner.

Figure 1 is borrowed from an excellent article on determination of pulmonary insufficiency<sup>5</sup> where it appeared recently, and illustrates the processes occurring within a normal lung. The air flow through the upper U-tube, the ventilatory phase of the respiratory process, might be measured with a clinical spirometer, and ordinarily amounts to between 4.5 and 6 liters per minute. The total volume of air that could be moved through the tube in one breath represents the vital capacity while the actual volume of the circuit constitutes the residual air or dead space within the lung. The dotted line between the opposed U-tubes represents the capillary-alveolar interface, and respiratory gas exchange takes place across the cross-hatched area. The area of the circuit marked "dead space" represents the fact that not all of the air ventilated reaches the capillary-alveolar interface. This "dead space"

or residual air volume has been studied extensively,<sup>1</sup> and it has been found to be slightly less than 28 per cent of the total lung volume in a healthy



man. Any increase in the residual air practically always indicates the presence of pulmonary emphysema.

The inverted U-tube represents the pulmonary circulation. The dynamics of this segment of the circulatory system have been investigated only since the advent of cardiac catheterization through a peripheral vein. By this means the pressures in the right ventricle and pulmonary artery have been measured, and from the rate of oxygen utilization the rate and volume of blood flow through the lung have been determined. It is important to remember that normally the pressure never rises in this system despite increases in minute volume of flow. Any increase in flow is accommodated by the opening of non-perfused capillary beds. If the necessary volume of new beds is not available because of some obliterative disease, then the pressure within the system must rise, and flow is speeded through the capillaries, or shunted around the beds completely.

Figure 2 represents the conditions which prevail when the airway is obstructed but the pulmonary circulation is left intact. The diagram might represent the picture of acute bronchial asthma, suffocation, spontaneous pneumothorax, or some types of pulmonary fibrosis. The causes of acute obstruction of the respiratory tract are

From the Veterans Administration Hospital, Minneapolis, Minnesota, and the Department of Internal Medicine, University of Minnesota.

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## PULMONARY EMPHYSEMA—SOUCHERAY

usually apparent, but before one could be sure that a chronic pulmonary disease was due solely to ventilatory dysfunction the dynamics of the pulmonary circulation would have to be investigated by cardiac catheterization.

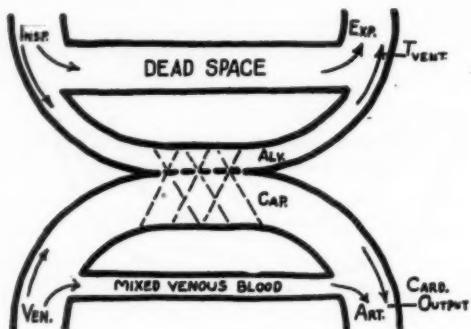


Fig. 2. Diminished ventilation. Normal circulation.

of the capillary beds. This is the functional picture of pulmonary emphysema whether it be the hypertrophic bullous type, senile degenerative type, or the compensatory type seen surrounding a contracted scar of tuberculous inflammation or

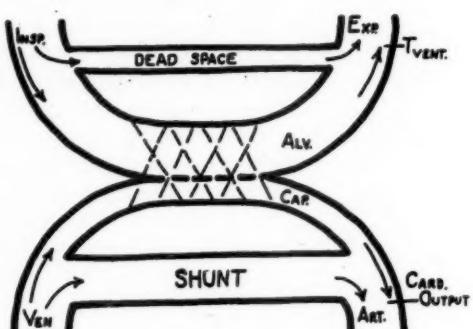


Fig. 3. Normal ventilation. Diminished circulation.

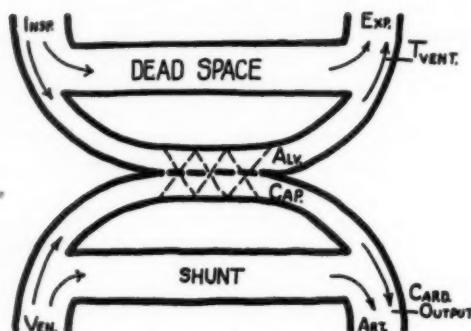


Fig. 4. Diminished ventilation. Diminished circulation.

Figure 3 represents the conditions which might prevail in cases of pulmonary hypertension due to pulmonary arteriosclerosis, either primary or secondary to some other disease such as mitral stenosis or some types of pulmonary fibrosis.<sup>2</sup> These diseases are certainly diseases of the pulmonary system and may present the picture of undue fatigue or dyspnea on exertion, cough, or hemoptysis. But without actual measurements of the dynamics of the pulmonary circulation, the real disease may lie undisclosed and, perhaps, unsuspected. Measurements of the ventilatory function alone would probably be normal and thus might even serve to turn one's attention away from the pulmonary system as the seat of disease.

Finally, Figure 4 illustrates a combination of circumstances in which there is both diminished ventilation of the alveoli and impaired perfusion

in portions of a lung distorted by the retraction of fibrous pleuritis. All chronic pulmonary emphysema is characterized by distention or distortion of alveolar spaces, loss of interstitial elastic fibers, and hypertrophy of the muscular layers of the arterioles with obliteration of associated capillary beds. To be able to detect or even suspect the presence of this type of combined ventilatory and circulatory disease would be a distinct advantage to the clinician because people harboring this type of pathology have lost a great deal of their ability to adapt either to an increased demand for oxygen-carbon dioxide exchange, or to an increased rate of blood flow through the pulmonary vascular bed. They are in a poor position to withstand any operative procedure within the thorax, they are more than usually susceptible to the pulmonary infections that so frequently follow general surgical procedures under anesthesia, and they suffer from a real disability which is often differentiated from malingering only with great difficulty.

In a recent study of pulmonary disability in cases of anthrasilicosis<sup>6</sup> through a comprehensive battery of both clinical and physiological tests two important conclusions were brought forth: first, pulmonary emphysema is the pathological process associated with most disabling pulmonary disease and, second, about one-half of the cases of advanced pulmonary emphysema may evade a competent examiner and be found only after extensive examinations of pulmonary function far beyond the scope of any clinical laboratory. It

PULMONARY EMPHYSEMA—SOUCHERAY

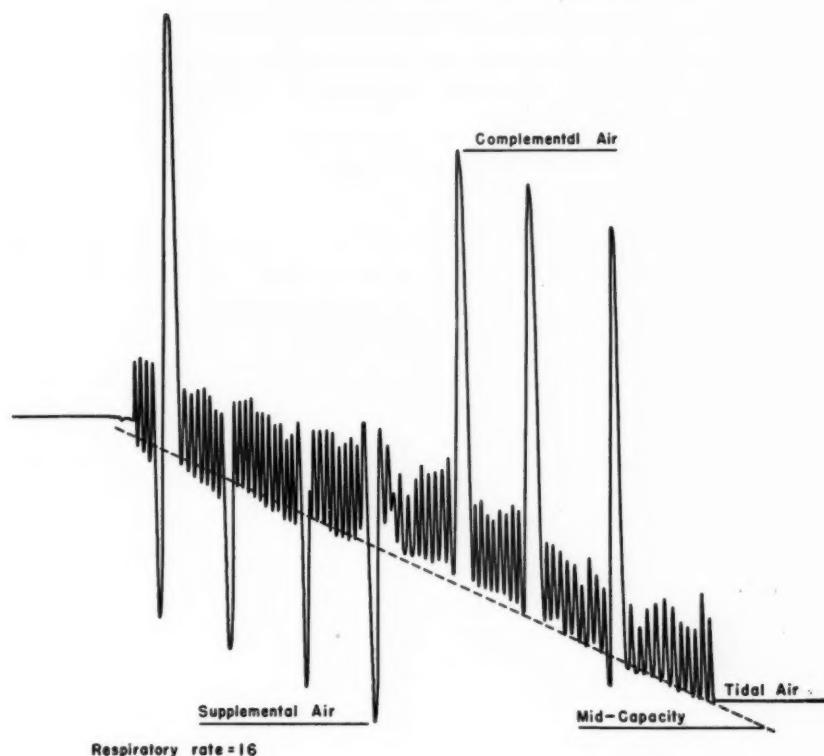


Fig. 5. Normal vital capacity.

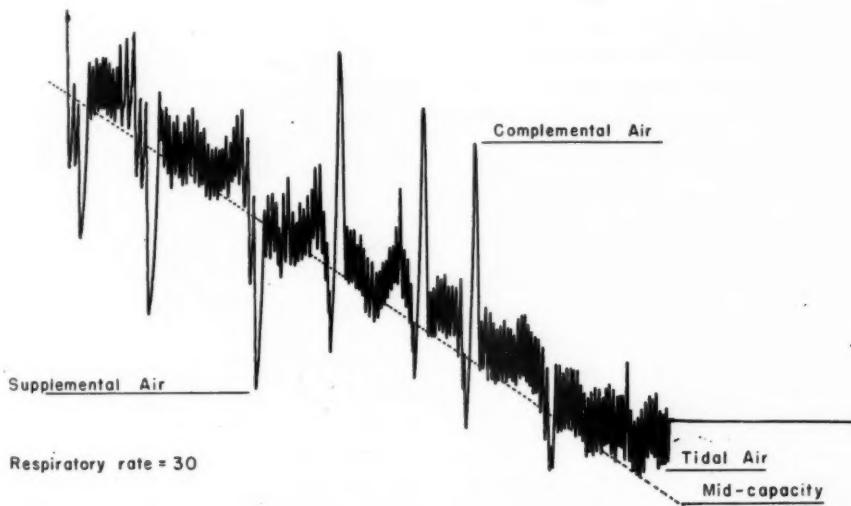


Fig. 6. Vital capacity in emphysema.

## PULMONARY EMPHYSEMA—SOUCHERAY

TABLE I. SEPARATION OF CASES OF EMPHYSEMA  
By Means of Measurement of Lung Volume and from Consideration of the Character of the Respiratory Tracing

Classification	Vital Capacity	Alveolar Nitrogen Vol. %	Residual Air Total Lung Volume	Distribution of Patients by Laboratory Measurement	Distribution Within Each Group from Consideration of Tracings Only
Group 1 Normal	Over 3500 c.c.	Less than 2.5	Less than 28%	9	All of the 18 patients in Groups 1 and 2 fell into the "grossly normal" classification.
Group 2 Slight emphysema	2500-3500	2.5-3	28-35	9	18 of the 19 patients who were in Groups 3 and 4 fell into the "grossly abnormal" classification as did one patient from Group 2.
Group 3 Moderate emphysema	1800-2500	3-5	35-45	2	
Group 4 Severe emphysema	Less than 1800 c.c.	Over 5	Over 45%	17	

also seemed apparent that symptoms of pulmonary insufficiency were dependent not so much on the silicosis or fibrosis as on the degree of pulmonary emphysema present.

Some years ago Christie described the breathing patterns of some organic as well as functional diseases. Figure 5 is a normal respiratory tracing. Note that the rate and depth of the breathing action are quite regular, and that the resting or mid-position of the chest is constant. The complementary air is over half the vital capacity and as it is expired, notice that the expiration line is not curved. Notice too that the chest returns to the mid-position after either deep inspiration or deep expiration. Figure 6 is a respiratory tracing illustrating moderately severe emphysema. The respiratory rate is rapid but not always regular, and there is some variation in depth of breathing. This case of emphysema was probably of moderate severity because the complementary air is little diminished. Two things, however, do indicate loss of pulmonary elasticity: (1) the curved expiratory lines as rate of expiration slows toward the end when more and more accessory muscles are called into play, and (2) the failure to return to a constant mid-position after either a deep inspiration or forced expiration.

An attempt has been made here to evaluate Christie's indications of emphysema in respiratory tracings by recording the impression gained from considering the vital capacity as well as other characteristics in spirometric tracings made by thirty-seven patients, most of whom were suffering from some cardiac or pulmonary disease. These impressions were then compared with actual measurements of the ratio of residual air to total lung volume made on the same patients. In many there was also available the measurement

of the nitrogen concentration in the alveolar air after the patient had been breathing pure oxygen. This type of measurement was developed by Courand and associates as an indication of thoroughness of ventilation of all the alveoli. In a normal well-ventilated lung less than 2.5 volumes per cent of nitrogen remain in the alveolar air after the subject has breathed pure oxygen for seven minutes. Any increase in the residual nitrogen usually signifies poor ventilation, most often due to the distended alveoli of pulmonary emphysema.

The thirty-seven cases were divided into a group of normals and three groups representing emphysema of varying degrees of severity. Division on the basis of laboratory examination alone included as normals any patients who had a residual air to total lung volume ratio of less than 28 per cent and an index of alveolar ventilation of 2.5 volumes per cent or less of nitrogen in the alveolar air. On the basis of inspection of the respiratory tracings, the normal group had a vital capacity in excess of 3500 c.c., showed rapid expiratory rate, and readily returned to the resting position after either a forced inspiration or forced expiration.

From Table I it is apparent that the two methods do not give parallel results, but notice that there is complete separation of normals and borderline cases from cases of severe emphysema. The clinical impression failed to detect only one case of slight emphysema but called five normal persons slightly abnormal.

Thus, with an adjunct system of examination only one abnormal person was missed. If examination of the respiratory tracings had been a part of the general physical examination which

(Continued on Page 896)

MINNESOTA MEDICINE

## RESPIRATORY ALLERGIES IN CHILDREN

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**R**ESPIRATORY allergies are present in the young child more frequently than are commonly diagnosed. A persistent nasal discharge in an infant is often casually attributed to irritation of the nasal mucosa by regurgitated vomitus, or to lint from bed clothes and fuzzy garments, or it may be dismissed as a common cold. The underlying possibility of allergy is not even considered until numerous repetitions of these symptoms have occurred or until true asthma develops.

In a study of 164 cases of asthma, Buffin<sup>2</sup> showed that 20 to 30 per cent of these children exhibited their first allergic symptoms before two years of life. The onset of bronchial asthma in the young child may be gradual or sudden. In those cases of gradual onset, frequent episodes of croup occur. Later, bronchitis with a chronic persistent cough develops. This cough is provoked by sticky secretions which initiate paroxysms of coughing that simulate pertussis. Wheezing appears next, usually in the presence of superimposed respiratory infection, and finally true asthma develops. The onset of asthma in the young child may be sudden and dramatic. The initial attack is rapid and appears immediately after the ingestion of some offending food or exposure to some irritating inhalant. In this group of cases there is usually no history of antecedent nasal symptoms. These patients frequently reveal isolated wheal formations upon skin testing. The management and treatment is simpler and more rewarding than in the gradual type of onset. Unfortunately, the number of cases of this type are in the minority. Asthma which develops early in life is likely to be more severe than that originating later.

In comparing asthma of the infant with that of the adult, some very startling differences are noted. The asthmatic infant does not manifest the same degree of dyspnea as the adult. The wheezing, with prolongation of expiration which is so common in the adult, is never seen in the same degree in the infant. These differences are probably due to the softer thoracic wall and the predominantly abdominal respirations of the in-

fant. The young child does not exhibit the same degree of anxiety which is characteristic in the older patient. It is common to find children playing unconcerned, and yet on auscultation of the chest, there are present definite wheezes and râles.

Older children with nasal allergy present symptoms of recurrent nasal congestion, mouth breathing, watery-clear nasal discharge, and an associated hacking cough which is usually more prominent at night and disappears shortly after awakening. These children are irritable, restless, often temperamental individuals, and are erroneously labeled behavior problems.

Too many of these cases are subjected to tonsillectomies in the hope that fewer so-called "colds" will develop. Piness,<sup>9</sup> as early as 1925, warned that tonsillectomies, when performed for the relief of allergic symptoms, end in failure. Bullen<sup>3</sup> reviewed a series of 1000 children with allergic manifestations who had had tonsillectomies, and concluded that this procedure was of no help in the treatment of allergic children. Clein<sup>4</sup> also studied this problem and showed that in the majority of those cases in which lymphoid tissue reappeared in the pharynx following tonsillectomy there was present an underlying undiagnosed allergy.

Where sound surgical indications for tonsillectomies and adenoidectomies are present, the operation should be done, but not until the underlying allergic problem is properly diagnosed and under competent management. There is proof that if this procedure is done during the pollen season, a latent pollinosis, or asthma, may develop. A few of these children with abundant lymphoid tissue in the oral and naso-pharynx are benefited by radiation therapy.

If nasal symptoms are not controlled early in childhood serious disturbances of growth and development may occur. An obstructed nasal passage leads to mouth breathing with poor aeration of the sinuses resulting in their maldevelopment, and thus permanently affecting the facial contours. The low grade obstruction to the eustachian tube predisposes to frequent attacks of otitis and inevitable hearing loss.

The diagnosis of allergy in the infant and child

From the Department of Pediatrics, Medical School, University of Minnesota.

Presented at the ninety-seventh annual session of the Minnesota State Medical Association, Duluth, Minnesota, June 13, 1950.

## RESPIRATORY ALLERGIES—NELSON AND STOESSER

is extremely important because if the symptoms are controlled early, the likelihood of major allergic disease in adulthood with the irreversible anatomical changes such as palatine and facial deformities, emphysema and bronchiectasis is decreased. Children, when correctly diagnosed, usually respond dramatically to allergic control. It is a fallacy to assume that the child will outgrow his allergies. Clein<sup>5</sup> followed 100 cases of allergic children over a period of 10 to 15 years and discovered that the majority of these cases revealed their first symptoms before the first year of life. What is more startling is that 98 per cent of these 100 cases developed major allergic symptoms before their tenth birthday. This means that most of the major allergic symptoms in children are preschool problems.

The differential diagnosis of allergic rhinitis is relatively easy and will be discussed later, but the differential diagnosis of asthma is considerably more complex. Glaser<sup>7</sup> cautions that not all wheezing can be attributed to asthma. The differential diagnosis must include congenital stridor, foreign bodies, bronchial stenosis, laryngotracheo-bronchitis, pertussis, and pneumonitis. The possibility of a tumor mass, tuberculosis, or even fibro-cystic disease of the pancreas should be considered. Tracheal vascular anomalies and laryngo-spasm, due to tetany, must be differentiated in the young infant. A roentgenogram of the chest, or fluoroscopy, should be requested where any doubt of the diagnosis exists.

The presence of a concomitant allergic manifestation such as eczema or urticaria makes the diagnosis simpler. In diagnosing allergy, the family background is extremely important. Numerous studies concerning the hereditary factors in allergy have appeared. In general, the antecedent family history is positive in from 50 to 75 per cent of allergic individuals. This high incidence of family allergic history is in contrast with the low antecedent family history found in normal non-allergic persons of only 7 per cent. Vaughan<sup>12</sup> points out that the majority of allergic individuals who have a history of allergy in both parents will show evidence of their disease before ten years of age.

The history, properly taken, is the most valuable tool in considering an allergic problem. It should include the type of environment, habits of the child, and a chronological order of the symptoms. It is important to inquire concerning any seasonal relationship to the symptoms.

The investigation of the allergic patient should include a thorough physical examination. The general state of health must be evaluated, endocrine disturbances ought to be ruled out, and the foci of infection eliminated. The routine urine, blood count, and Mantoux tests should be requested. Upon examination of the nose, the airway is found to be narrow and inadequate. The nasal mucosa is a pale blue-grey color and varied degrees of edema and discharge are present. The presence of polyps is rare in children, but is seen frequently in the young adult. The pharyngeal wall is often studded with islands of lymphoid tissue giving a cobblestone-like appearance. In some of the older children the nasal mucosa, instead of being pale gray, is a deep red color. Obstruction of the nasal airway in these patients is the presenting symptom. Incidentally, this group of children do not respond well to the antihistamine group of drugs. The nature and the amount of the nasal secretion vary considerably. In the uncomplicated patients with allergic rhinitis these secretions are thin and clear, but, if an associated infection is present, the secretions are purulent and viscid. In either case, smears of the nasal secretions should be made. In the thin secretions, numerous eosinophiles will be seen. In the purulent secretions there will be clumps of polymorphonuclear cells present in addition. Roentgenograms of the sinuses frequently show thickening of the sinus mucosae, but in most cases this is due to edema and not to infection. The emphysematous chest, with flattened diaphragm and accentuated bronchovascular markings in the asthmatic individual, needs no further comment.

Investigation by cutaneous skin tests is indicated where definite allergy has been diagnosed, but a patient should never be skin tested in the hope of diagnosing an allergic condition. The method of performing skin tests has been the subject of considerable controversy, but in children the puncture technique is the method of choice. The application must be uniform, and fresh antigens are a necessity.

The mere performance of skin testing does not constitute a diagnostic procedure. In the interpretation of these tests, the child's age, food habits, environment, and severity of symptoms must be considered. The tests are of immense value if the limitations of this procedure are appreciated. Stoesser<sup>10</sup> stresses the fact that there is no correlation between the intensity of the skin reaction and the allergen's clinical significance. The

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complete elimination of the offending allergens would be ideal. In the young infant, in whom the diet is simple, and in whom the environment can be controlled, elimination of allergens is usually more successful. This is not possible in the older child.

The successful management of allergic diseases depends upon the thoroughness of the allergic investigation, the co-operation of child and parents, and the choice of medication. The majority of the failures in treatment are due to the fact that physician and patient alike expect a cure by the simple elimination of a few isolated allergens or by a few weeks of dietary restriction. A great deal of time and effort must be expended if good results are to be expected. Frequent interviews with the parents are necessary. The importance of such allergens as household pets, animal danders, insecticides, blooming plants, orris root, and smoke must be stressed. Adequate rest is a necessity. It is necessary to restrict physical activity. Swimming is usually curtailed because of irritation by water in the nose. The possible harm from long rides in the country during the pollination season must be pointed out.

Because of these restrictions, the psychological stresses on the already chronically ill child are increased. Bakwin and Bakwin<sup>1</sup> have emphasized the emotional factors in asthma. The allergic child may become overprotected and consequently become extremely dependent on the mother. One must constantly stress substitution in the child's management, and the need for outlets in activities which do not jeopardize the allergic condition.

Hyposensitization yields the best results in pollinosis and in the treatment of pollen asthma. Only mediocre results are obtained with inhalants. Molds are poor antigens, and in children hyposensitization with these antigens is of doubtful value. The attempt to hyposensitize to foods is usually disappointing.

The use of nose drops in the allergic individual is justifiable only for temporary relief. In children 0.25 per cent neosynephrin, 0.5 to 1 per cent propadrine hydrochloride, 0.5 to 1 per cent clopane, and 1 per cent onethyl sulfate may be employed. The antihistamine drugs are of value in allergic rhinitis. Stoesser<sup>11</sup> classified these drugs according to their general effectiveness. Antistine, neohetramine, and neoantergan give fewer side reactions but are also relatively weak drugs. Thephorin, chlor-trimeton, pyrrolozote pyriben-

zamine and benadryl are the more powerful members of this group. Thenylene, diatrin, histadyl, tagathen, chlorathen and decapryl are intermediary in action. In some children a sedative effect is desired and for these patients drugs such as decapryl or benadryl are particularly suited. A few children need added stimulation and this can be accomplished by thephorin. Some of the antihistamines have a very decided atropine-like action and are harmful in that they tend to dry the secretions and thereby precipitate asthma.

The use of antihistamines in the treatment of bronchial asthma has been highly overrated. Feinberg<sup>6</sup> makes this statement, "In the last three to four years as a result of high-powered publicity, the substitution of the antihistamines for the more efficient anti-asthmatic remedies and allergic management by physicians and patients has resulted in an actual deterioration of the management of asthma." The use of the antibiotics in the acute attack of asthma is abused. This may be due to the misconception that the asthmatic attack is caused by the infection alone. If the concept of underlying allergy with superimposed infection were clearly understood, a more reasonable plan of treatment would be followed. One must remember that these drugs, particularly penicillin and aureomycin, and to a lesser degree terramycin, are capable of sensitization.

The primary disturbance in bronchial asthma is obstruction of the bronchial tree by edema, smooth muscle spasm, and retained secretions. The main objective is to clear the bronchial tree of obstruction. Expectorant cough mixtures incorporating potassium iodide, sodium or potassium citrate, ammonium chloride or ipecac are essential in good management. Numerous mixtures of these drugs in combination with sedatives and antihistamines are available. Hydration in the asthmatic patient is extremely important. The ill child tends to become dehydrated thus further concentrating the secretions and often dramatic results by simple administration of fluids are obtained. The sympathomimetic drugs such as orthoxine, racephedrine, propadrine hydrochloride, benzylphedrine, isuprel and epinephrine are needed for their bronchodilator effect. These drugs may be used alone, but usually in conjunction with a sedative and/or an antihistamine. Syrup of orthoxine works well in the young infant, while franol, amodrine, tedral or amesec can be used in the child capable of swallowing a tablet. Epinephrine is the best drug in

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the treatment of the acute attack. Rubin, in Mitchell-Nelson's textbook,<sup>8</sup> states that small doses of adrenalin injected hypodermically may be given at frequent intervals for many days without harmful effects. Doses of 2 or 3 minims give just as effective relief as larger doses and the side effects are minimal. Epinephrine in oil or in gelatin may be employed for a more lasting effect, but be careful that the child is not sensitive to the vehicle used.

The xanthine drugs are also bronchodilators and of this group aminophylline works well. It may be used orally, rectally, or intravenously. In children, this drug frequently produces nausea and vomiting.

### Conclusions

1. Allergic diseases of the respiratory system are common in the young child, but because of their insidious onset they are commonly misdiagnosed.

2. The most important factors in allergic management are a thorough allergic history, a detailed examination including skin tests and a complete orientation of both the parent and the patient.

3. Allergic children are commonly subjected to needless tonsillectomies.

4. The use of the antibiotics in allergic diseases has been abused.

5. The antihistamine drugs are of some help in children with allergic rhinitis. However, their value in the treatment of asthma has been highly overrated.

6. A return to a more rational form of therapy in asthma, using expectorants, hydration and bronchodilator drugs is indicated at this time.

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## CLINICAL DETECTION OF PULMONARY EMPHYSEMA FROM RESPIRATORY TRACINGS

(Continued from Page 892)

included fluoroscopic examination of the chest, I feel certain that separation of persons with all degrees of emphysema from the normal group would be nearly complete. As part of a screening examination attempting to detect the presence of combined ventilatory and circulatory impairment in persons with pulmonary disease, consideration of respiratory tracings made on the ordinary clinical spirometer may be a very simple yet rewarding procedure.

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## CANCER OF THE LARGE BOWEL

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CANCER of the large bowel is reported in sufficient frequency at St. Mary's hospital, Duluth, to make it a subject of interest and to warrant a review of all cases that have been treated in the years 1938-1947 inclusively. The fact that there are approximately 16,000 cases of cancer of the large bowel in the country annually poses a tremendous surgical problem. Such factors as better medical training in the various medical schools, the education of the public by the cancer control programs, more refined methods of diagnosis, and so forth, have no doubt contributed to its greater incidence in recent years. But, notwithstanding, there are still too many cancers of the large bowel that are seen at a stage of inoperability. This is especially true of cancer of the right colon, where obstruction is not an early occurrence. The disease is insidious to the point of hopelessness in some cases. Careful attention to history and a good physical and rectal examination will lend to early diagnosis. Over 50 per cent of lesions of the rectum and sigmoid are within reach of the average index finger, and still this simple but admittedly not too esthetic clinical maneuver is too often omitted. Extirpation of the lesion is possible in most cases, and in comparison with the survival rate of cancer in other organs, cancer of the colon is one of the most favorable for cure. Early diagnosis is of the essence, the responsibility being that of the attending physician, and not entirely the roentgenologist. To be well versed in proctoscopy is to diagnose cancer of the sigmoid early, but too few are skilled in the use of the proctoscope. To pass the same blindly, without caution, and without experience or some training is often disastrous, and seldom revealing. The patient is entitled to a careful consideration of abdominal discomfort, change in bowel habits, melena, fatigability, weight loss, and so forth, and unexplained symptoms warrant further study or periodic observations. In most series, the average delay from the onset of symptoms to hospitalization is about six months, which is far too long. However, once the diagnosis is made, the responsibility for competent care is that of the good surgeon whose surgical judgment will be guided by the absence or

presence of obstruction, infection, and the general condition of the patient.

Surgical judgment means not only if and when to operate but what type of procedure should be done with minimal risk to the patient. A résumé of the indicated surgical procedures thought best by some of the recent writers on the subject will be cited a few paragraphs later.

TABLE I. NUMBER OF CASES PER YEAR

Year	No.	Per Cent
1938-42 . . . . .	24	23.1
1942-47 . . . . .	84	76.9
Total . . . . .	108	100

TABLE II. SEX INCIDENCE

Sex	No.	Per Cent
Male . . . . .	45	41.7
Female . . . . .	63	58.3
Total . . . . .	108	100

### Incidence

Carcinoma of the colon comprises 10 per cent of all carcinomas and approximately one half of these are in the rectum. The sigmoid is next, the cecum is third.

An attempt is made to compare the site of predilection of cancer of the large bowel with other series of the larger clinics, and we see that the St. Mary's series corresponds rather closely.

TABLE III

Source	No. of Cases	1931-45 Hines Vets. 1,330	1936-44 Lahey 1,457	1907-28 Mayo 3,542	1937-47 St. Mary's 108
Involved Sites and Percentages:					
Cecum		7.7	6.5	6	18.5
Ascending Colon				9	cases
Hepatic Flexure				7	cases
Transverse Colon				11	cases
Splenic flexure				6	cases
Descending Colon				6	cases
Sigmoid		15.9	17.1	17	36.1
		13.0	12.4	13.55	
Rectosigmoid		63.5	62.8	62.8	54 cases 50.

The remarkable consistency of the above figures certainly belies any belief that geography, climate, social strata, and so forth have any influence on the incidence of carcinoma of the bowel. In fact, it would seem that this constancy

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of predilection depends more on basic anatomical structures and on local physiology.

At this point it is apropos to review the intrinsic blood supply of the large bowel and rec-

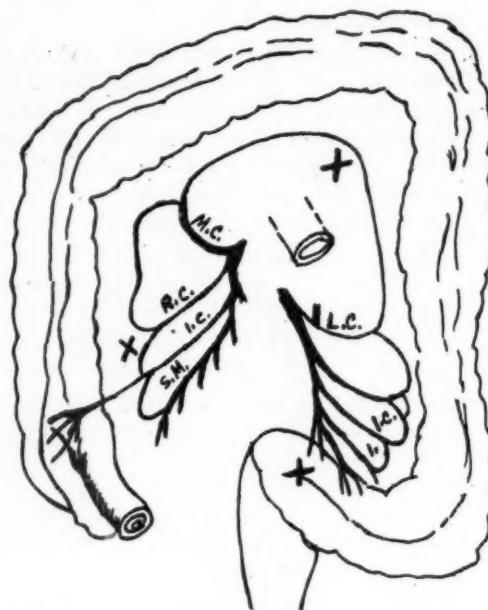


Fig. 1. X denotes weak points in marginal anastomosis.

tum, as the success of an anastomosis depends primarily on the blood supply. A beautiful anastomosis in a bloodless segment means nothing but disaster, but a good blood supply may minimize the dangers of the not too competent juncture.

Investigation into the blood supply of the colon has been stimulated by failures in colonic surgery, and injection of the arteries in cadavers has been the chief method of study. It is noted that the lymphatic supply is abundant and that the lymph channels follow closely the blood vessels to the origin of the mesenteric arteries. The extent of possible removal of the lymphatics is often limited because to remove them is to sacrifice vital blood vessels. In one's zeal to accomplish permanent cure, large vascular trunks may be ligated, endangering the circulation to the ileum and to longer colon lengths than anticipated.

The blood supply to the large bowel is from three major sources:

1. Superior mesenteric artery.
2. Inferior mesenteric artery.

3. Internal iliac branches:
  - a. Middle hemorrhoidal.
  - b. Inferior hemorrhoidal.
  - c. Pudendal artery.

Also, a better understanding of the colonic circulation may be had if we consider it in this light:

1. Main arteries.
2. Marginal artery, so-called the artery of Drummond and the vasa-recta.
3. The vessels within the bowel wall.

The marginal artery of Drummond joins the circulation from both mesenterics. This can be demonstrated by injecting media into either mesenteric artery and recovering it from the other. The vasa brevia are both long and short and enter the bowel on the mesenteric side naturally. The omentum with its good supply may have a part in colon surgery. Its blood comes from the gastric vessels, mainly the gastroepiploic. Its power of rapidly becoming adherent to the peritoneal surface, sealing over areas of questionable circulation and reinforcing suture lines is well known.

Although there are disadvantages in the arrangement of the blood supply to the colon, it still has some good points. We should be aware of

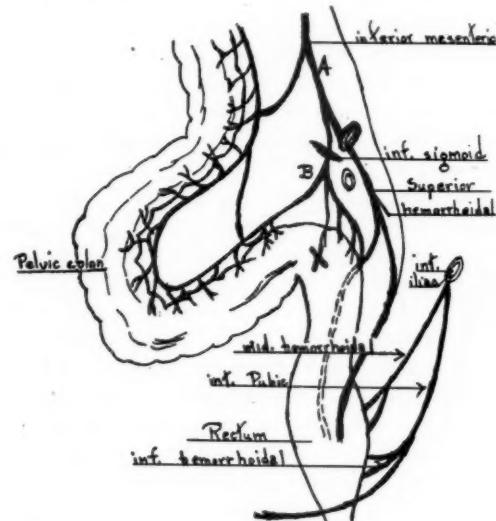


Fig. 2. Blood supply to the rectum, which is more richly supplied with blood than the other parts of the large bowel.

the fact that all its arteries come from the center of a rectangle formed by the loops of the colon and radiate peripherally from the center. This means that the peritoneal reflection on the lateral aspect of both the descending and ascending colon

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may be freely incised without encountering vessels and permits easy delivery of these segments of bowel from the abdomen, thus facilitating resection. The splenocolic ligament at the splenic flexure may require ligation for bleeding, but the attachment at the hepatic flexure may be severed with impunity.

### Symptoms

A few points about symptoms. Usually an average from six to ten months elapses from the onset of symptoms until something medical is done. The first symptom may be sudden obstruction or perforation. Lahey states that at his clinic the time interval for all cases averages nine months with no betterment in recent years.

Unfortunately, many patients still undergo trial medical treatment too long: hemorrhoidectomies, appendectomies, and other surgical procedures before diagnostic studies are instituted. This is bad because the resectability of the tumor varies directly with the time of its existence. The following are the symptoms most frequently associated with tumors of the large bowel:

*Abdominal Distress.*—This is frequently more marked in the region of the descending colon, although often obstruction of the left colon will cause most distress in the dilated right bowel. Tenderness is chiefly on an inflammatory basis due, most likely, to degeneration of the tumor with secondary infection. The amount of distress depends upon the degree of obstruction and is usually aggravated by eating and relieved by a bowel movement. In about 8 per cent of the left colon lesions, acute obstruction is the first symptom. It is said that 5 per cent of the sigmoid tumors begin this way. Carcinoma of the cecum frequently is first diagnosed at appendectomy when the true pathology is usually noted by the surgeon. Further radical surgery at this time is done without the benefit of good preoperative preparation.

*Change in Bowel Habits.*—This is very important. A careful history may reveal alternating constipation and diarrhea. It is the contention of many that unfortunately this is not too early a sign and that it signifies considerable change in the mucosa or lumen of the bowel.

*Mass in the Abdomen.*—Many times this is the presenting complaint. Ten per cent of patients with carcinoma of the cecum discover a

TABLE IV. DURATION OF SYMPTOMS

Duration	Number	Per Cent
Under 6 months	62	57.4
Over 6 months	16	14.8
Uncertain	30	27.8
Total	108	100

TABLE V. CLINICAL SYMPTOMS AND FINDINGS

	Neg.	Pos.	No. Inf.
Weight Loss .....	19	48	41
Anemia .....	22	23	63
Pain			
Upper Abdomen .....		11	
Lower Abdomen .....		35	
Both .....		32	
Palpable Mass .....	51	37	20
Occult Blood .....	26	31	51
Obstruction .....	8	66	34
Gross Hemorrhage .....	5	2	101
Perforation .....	5	3	100
+ X-Ray .....	37	34	37
Proctologic Exam. ....		28	80

lump before the doctor. These patients are naturally thin ones, whose sigmoid and cecal areas can be easily palpated.

*Weight Loss.*—Contrary to the usual belief, this is often an early sign and is nearly always present.

*Blood in the Stools.*—Found in about one-third of the patients with lesions in the left half, but in only 8 per cent with right colon involvement.

*Other Complaints.*—Anemia is characteristic of cecal involvement. The mechanism of the early anemia in cecal carcinoma is not clearly understood. Nausea, vomiting, weakness, anorexia, are other symptoms that are found and indicate some wasting disease.

From the standpoint of incidence, we note that in this series the three most important symptoms and findings are:

1. Pain
2. Obstruction
3. Weight loss

### Pathology

The character of the lesion was proved by microscopic studies in a very high percentage of the series either by biopsy, removal of the tumor, or autopsy. Adenocarcinoma or a colloid modification of such is usually found; occasionally an undifferentiated carcinoma. Removed nodes can not be labeled malignant or benign grossly, and at operation frozen sections should be done before determining with conviction that the case is inoperable.

Multiple polyposis has been noted in about 2

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TABLE VI

	Pathology	Diagnoses
Adenocarcinoma .....		107
Carcinoma Simplex .....		2
Squamous Carcinoma .....		0
Others .....		2
<b>Total .....</b>		<b>111</b>

per cent of the cases of carcinoma of the bowel and the incidence of multiple carcinoma is rather rare.

### **Operability or Resectability**

The above terms are relative ones. The attitude towards resectability has materially changed in recent years with gradual improvement in surgical principles, chemotherapy, preoperative preparation, et cetera. Operability has been extended to a remarkable degree, and even bearing in mind radical removal of possibly involved tissue, we have now arrived at the point where if the area can be mobilized, it may be removed rather safely. On the other hand, some have questioned the justification of radical operation in the presence of liver metastases. Nevertheless, a stormy convalescence in either of these cases is often justified by incredible periods of good health and well-being in a patient who is doomed.

Segments of the parietes are now removed with impunity but of course with a resultant higher mortality. The morbidity will also be greater, and both patient and doctor will sometimes wonder whether the effort to prolong life is worth while. The rate of cure is also decreased proportionately by the inclusion of these extensive operations. On the other hand, there is much to be said for a radical attitude. Not only does the patient have the best chance for a respite and a possible cure, but there is implanted in the mind of the young surgeon the correct viewpoint toward the increasing scope of surgery. In conclusion, resectability is probably a better term than operability.

The last chart was made to determine if the operative mortality has improved any in the last five-year period. The sulfonamides were in use in the first group and the second group had the additional aid of penicillin, sulfasuxadine, et cetera. Without any doubt, also, in the second five-year period there was better and more thorough preoperative and postoperative care.

Active interest in surgical management of malignancy of the large bowel has been more evident

in the last twenty years. Anatomy and physiology, of course, have not changed, nor have all surgeons suddenly become experts, but no one doubts that surgical technique has increased the scope of resectability. Further benefits must come from earlier diagnosis, which obviously is lagging far behind surgical advances.

TABLE VII. NUMBER OF RESECTIONS OF CARCINOMA  
OF COLON AND OPERATIVE MORTALITY.

	0	20	40	60	80	100
1937-42 Resections					8:23	34.8%
1942-47 Resections						*
Multiple Stage	39					
Single Stage	69				16:83	19.2%
<u>Anesthetic</u>						
Spinal						52
Others	(Inhalation, Local, Intravenous)					56
					Number of Surgeons	25

There are admittedly many different ways of attaining a certain surgical goal in a specific segment of bowel. The main prerequisite, however, is to do as extensive and radical an operation as possible without unduly jeopardizing the patient. Stating it differently, first the patient's life must be safeguarded; and second, the patient's health must be restored. This, if done by the open or closed method, by the one-stage or two-stage procedure, or by any other technique, makes little difference, provided the surgeon can show that his results from the standpoint of mortality and morbidity are equal to those of other techniques. Perfecting one technique is better than trying out every new surgical wrinkle that comes along. This is not the type of surgery that should be attempted alone by the occasional operator, but the aid of one experienced should be enlisted. If the 16,000 cases of carcinoma of the bowel were parcelled out equally to all surgeons, few would have sufficient experience to deal with them properly.

There are a variety of well thought-out operative procedures for patients with cancer of the colon. Those who champion one-stage procedures are apt to lay great emphasis on the benefits derived from prompt removal. This doesn't condone too great urgency. Obstruction, subacute perforation, or fixation must alter the course of the staunchest one-stage advocate. Graded procedures are needed for safety in this group. Many non-resectable lesions can be made operable by preliminary bowel drainage, and consideration

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must be given to exteriorization methods. So-called aseptic anastomosis versus open sutures must be critically weighed in each individual case.

In the final analysis, the main controversies in surgery of the colon revolve around: (1) the one or multiple stage procedure, and (2) the open and aseptic or closed method of anastomosis. Broadly speaking, as someone aptly stated, "less depends on the method than the manner of its execution."

Since there is considerable difference in the technique and the mortality rates in the extirpation of growths in the various segments of colon, it is desirable to discuss these regions separately.

The right colon is involved in this series in 30 per cent. Obstruction is seldom a problem here, and therefore decompression procedures seldom are necessary. The chance of survival is good due to the anatomic arrangement which makes it easier to include the entire lymph and vascular area in the resection. The terminal ileum and the right half of the colon must be included in the resection. The operative mortality in this group is relatively high. Charles W. Mayo does a one-stage with open anastomosis with a mortality of 8.4 per cent instead of the usual about 20 per cent. Lahey champions a Mikulicz type of resection as a primary operation, and closure of the complete fistula at a later date. His mortality is 13 per cent. Stone prefers a one-stage resection with aseptic anastomosis, and those operating at Massachusetts General have found that the mortality is less in the two-stage procedure. It is well to delay the preliminary ileo-transverse colostomy until the patient is in fine fettle from a preoperative standpoint. Sulfasuxidine or succinylsulfathiazole is a must and the Miller-Abbott tube should be used. Dangers of this operation are: (1) the usual double risk to two operations, and (2) obstruction of small bowel from herniations through the trap left by the ileocolostomy. This can be lessened by placing the anastomosis more than 12 inches from the ileocecal valve, thereby making the trap larger. Various methods have been suggested to manage the large, often infected, dead space resulting from resection of a large growth. Good drainage is very essential. The Mikulicz pack has enjoyed recent publicity and popularity.

Several procedures most commonly used for lesions of the transverse colon are resection and primary anastomosis, extraperitoneal resection, resection after preliminary cecostomy. Prelim-

inary ileosigmoidostomy may be considered rarely, but may lead to an unnecessarily wide resection or may leave behind sizable defunctionalized segments of bowel. Primary resection is best adapted to lesions of the midcolon, and if the lesion is in the proximal third of the transverse colon, it can best be treated by the method used for the right colon.

We must always bear in mind the paucity of arterial blood at the distal end of the transverse colon, and if the resection is done in this virgin field, the bowel ends should be tested for viability.

The distal transverse, splenic flexure, and upper descending colon afford an ideal situation for a preliminary cecostomy followed by resection and aseptic anastomosis. A transverse incision is used well in this region. One may in some cases prefer Rankin's obstructive resection but immediate resection with anastomosis without preliminary drainage appears relatively hazardous in this region that is often obstructed.

The descending colon is involved the least. Representing one of the fixed areas of the colon, one cannot exteriorize the segment involved as easily as the sigmoid. Mobilization can be enhanced by dividing the suspensory ligaments to the splenic flexure. Obstructive resection has been popular at the Massachusetts General Hospital. Preliminary cecostomy, followed in ten days by resection and aseptic end-to-end anastomosis is the method of choice. There is some effort expended in closing the colostomy following obstructive resection, but preliminary cecostomy rarely requires surgical closure. In the absence of obstruction, resection with or without complementary cecostomy may be done. Complementary cecostomies heal more promptly than preliminary ones, due to the use of a small tube and shorter period of need for it.

For lesions of the sigmoid, although the operability is high and the operative mortality is low, the cure rate is considerably less than for the right colon. Lymphatic spread and earlier liver metastases account for this discrepancy. Many methods have been suggested to relieve the frequent and severe obstruction found at this site. The simplest and safest is cecostomy. If the growth is large or has produced an abscess by perforation, the cecostomy should be followed a few days later by a complete transverse colostomy. The Devine colostomy is rather well accepted in this country, but simple loop colostomy is becoming

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ing more popular. At any rate it is necessary to rest the infected bowel, and when possible to cleanse it preoperatively by means of irrigations.

The only price paid for safety and operability

1908, the surgical objective was extirpation and anastomosis of remaining segments to preserve the sphincteric mechanism. The emphasis was placed on the method of approach, i.e., perineal,

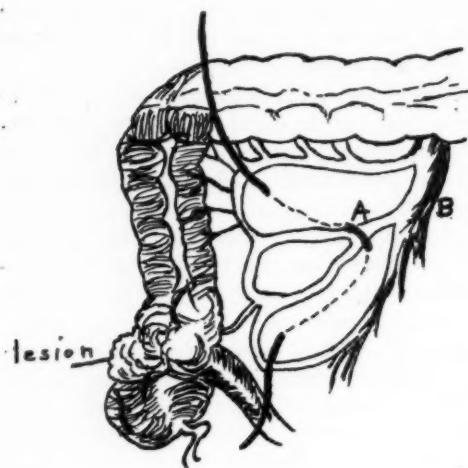


Fig. 3. The area of resection of the cecum with ligation of the ileocolic artery near the superior mesenteric at A. B indicates the main branch of the superior mesenteric which may be ligated inadvertently when an attempt is made to remove the lymphatic glands and which would result in death of a large part of the small intestine.

is the increased morbidity of additional hospital days. Many may be prepared for surgery without decompression and catharsis and enemas may be sufficient. Sulfasuxadine and succinylsulfathiazole are laxatives *per se*. Although it is the feeling of some that nothing more than such preparation is necessary before resection, many surgeons prefer decompression anyway. Whipple uses decompression frequently and Allen and Lahey do a preliminary tube cecostomy followed in about ten days by a Rankin obstructive resection. The use of a small catheter vent in the proximal segment placed near the clamp has been found helpful in this case.

The history of surgery of the rectosigmoid and rectum is varied and interesting. Littre, in 1710, was one of the first to do a colostomy. Sixty years later a cecostomy was done, and in 1783, Duret successfully performed a left ilio-lumbar colostomy for an imperforate anus in a three-day infant. Then colostomy was not used in operations for extirpation of malignant lesions of the rectum till 100 years later when, in 1887, Shede did a preliminary colostomy for removing a tumor posteriorly and re-establishing bowel continuity. Until Miles presented his technique, in

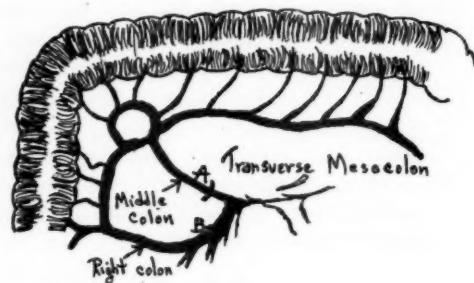


Fig. 4. In a certain number of cases where the left colic artery does not anastomose too freely with the middle colic part the splenic flexure, resection of the cecum and hepatic flexure may result in extensive devitalizing of the transverse colon when arteries are tied at A and B.

sacral, anal, et cetera, and the degree of removal of the sacrum. The Kraske and Hochenegg procedures were in vogue. The Kraske was an end-to-end anastomosis of the sigmoid or rectum through a posterior approach without colostomy. The Hochenegg method was based on the principle of pulling the upper segment out through the anus and fixing it there with sutures. Colostomy was seldom done during this surgical era because the closure of a temporary colostomy was then accomplished by end-to-end anastomosis and carried a high mortality. Maunsell, in 1892, combined abdominal resection and perineal excision with sphincter preservation and posterior anastomosis. Miles modified the entire objective by minimizing the necessity for maintaining the sphincter mechanism and emphasized radical removal. He predicated this on the studies of the lymphatics of the rectum and concluded that the tumor also spread downward towards the anus. The compatibility of a colostomy with routine social, economic, and athletic activity was propagandized. Gradually, his teaching became universal. Nevertheless, in the past thirty-five years there have been sporadic attempts to develop operative procedures that would answer the need for wide excision and yet preserve anal continence. Lockhart-Mummery and Balfour in 1910 reported their experiences of anastomosis over a rectal tube.

A new drive for eliminating the permanent colostomy was initiated in 1935 by Devine whose special transverse colostomy completely defunc-

## CANCER OF THE LARGE BOWEL—FISKETTI

tionalized the distal colon, permitting later resection and anastomosis followed by closure of the colostomy. In 1937 Horsley resected the rectosigmoid after preliminary cecostomy and did an

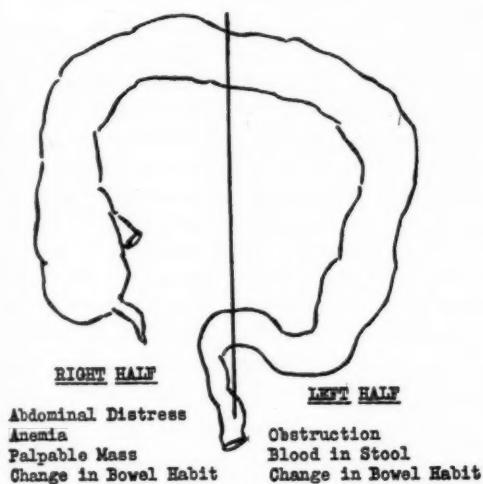


Fig. 5.

open anastomosis deep in the pelvis. Since 1939 reports have come from Babcock, Dixon, Fallis, Wangensteen and others, all with varying techniques but all with a common desire to eliminate permanent colostomy. This seems hopeful in the light of new interpretations in the mode of spread of carcinoma of the bowel. A half dozen investigators reveal that seldom is the spread by lymphatics or direct extension toward the anus. They think that a clearance of two inches below the tumor is sufficient. However, abdominoperineal resection is definitely indicated: (1) in widespread involvement of the sigmoid necessitating wide resection; (2) when the sphincters or levator muscles are involved; and (3) when the lesion is within three inches of the anus and encircles the canal (this may be debatable).

Summarizing, the temptation to make re-establishment of continuity the sole objective of the operation is one that must be guarded against if the surgeon is to avoid the most grievous of surgical sins, namely, fitting the patient to the operation rather than the operation to the patient.

### General Complications

Complications of colon surgery are best brought out by another chart: Table VIII.

In closing, some general considerations to be stressed in bowel surgery may be briefly mentioned. Chemotherapy has proven a boon and preoperative sulfa and penicillin are a therapeutic necessity. Less sulfa is being used in the peritoneal cavity because of the liver damage often ensuing. Sulfasuxidine is a fine drug in this field because of its low absorption and toxicity and because of its laxative properties. Because of the antibiotics, complications such as abscess for-

TABLE VIII

Complications	Number	Per cent of 49	Per cent of Total
Peritonitis .....	6	13	5.5
Wound Infection .....	8	16	7.4
Pneumonia .....	9	18	8.3
Thrombosis .....	1	2	.92
Obstruction .....	9	18	8.3
Embolism .....	2	4	1.8
Others .....	14	29	12.8
(1) Coronary			
(2) Heart failure			
(3) Cerebral			
Total .....	49	100%	45.02

mation and wound infection are slow to appear and should be vigilantly watched for. The use of the Wangensteen and Miller-Abbott tube is indisputable and is only equaled by preliminary temporary cecostomy or colostomy. Intelligent use of the Miller-Abbott tube is paramount but a discussion of this is not within the scope of this paper.

Delayed wound closure has been emphasized in this field. No matter how great care is exercised in the technique, these wounds have a relatively high incidence of infection. Coller's technique is to place the sutures, and then tie them and close the wound under pentothal anesthesia when no sepsis is assured, usually within seventy-two hours after resection. This practice has seldom been used at St. Mary's. Naturally, all the niceties and proprieties of preoperative and post-operative care are equally pertinent to this type of surgery.

In conclusion, bowel surgery will continue to pursue certain trends in the future as it has in the past. New techniques will replace the old. Many new drugs are just over the horizon, and consequently the tendency in recent years has been and in the future will be a steady decline in morbidity and mortality from the surgical aspect. May some panacea for early diagnosis be attained soon so that an ever increasing number of unfortunates will be spared the lot of death from cancer of the bowel.

## BERYLLOIOSIS

### Brief Discussion and Presentation of a Case with Pulmonary, Digital and Axillary Node Involvement

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and  
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**B**ERYLLOIOSIS is a truly modern disorder. Though the metal beryllium was discovered in 1797, the first recognition of toxic effects was made in 1933<sup>a</sup> and the first report of beryllium toxicity in the United States was that of Van Ordstrand and associates in 1943. Beryllium was not extensively used until World War II. Because it resists corrosion and fatigue and increases the tensile strength of alloys, it is used in precision instruments, carburetors, airplane pipe lines and electrical instruments and in the coating of fluorescent tubing. Toxicity apparently does not arise from exposure to the ore beryl itself but from the fumes and dust encountered in extracting and processing beryllium. Therefore, toxic effects are seldom observed except in industries engaged in this work. Exposure to the occasional breakage of a fluorescent lamp is not a hazard unless one is cut by a piece of the glass which may cause a beryllium ulcer to form. Since June, 1949, all the major manufacturers of fluorescent lamps have discontinued the use of beryllium; so that this source of danger will eventually be eliminated. Because of the infrequency of berylliosis the condition is likely to be overlooked.

A brief review of the clinical aspects of berylliosis will here be given.

#### Dermatologic Manifestations

Within three to ten days after the initial exposure to beryllium fumes or dust, some cutaneous manifestations will develop in more than 25 per cent of the workers. A dermatitis may appear on the exposed parts of the body or a more or less generalized urticarial reaction may develop. The patient experiences a burning sensation or pruritus of the affected areas. The lesions respond well when the patient is removed from the offending environment and with the use of soothing and antipruritic lotions. The antihistaminic drugs are also thought to be helpful. Conjunctivitis may be associated with contact dermatitis of the face, but heals without complications.

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A beryllium ulcer of the skin may develop if a minute crystal of beryllium enters through a cut or abrasion. A foreign body tissue reaction takes place which tends to ulcerate, heal and recur. This reaction evidently continues until the beryllium crystal is extruded or removed. Enlargement of the regional lymph nodes may be associated with the ulcer. Cuts from pieces of broken fluorescent tubing are a common source of beryllium ulcer. The treatment of this condition is excision of the region involved or incision and curettage to remove all traces of beryllium.

#### Respiratory Manifestations

Nasopharyngitis is an acute response to exposure to certain beryllium compounds. It consists of hyperemia and swelling of the mucous membrane of the nose and throat, and the patient notices soreness and bleeding. Ulceration, sometimes with perforation, of the nasal septum has been noted. The nasopharyngitis responds well when the worker is removed from the offending environment. It varies in severity.

Tracheobronchitis is an important development. It may exist without demonstrable pulmonary changes but it always precedes the development of pneumonitis. The symptoms associated with it are cough, dyspnea, occasional blood-streaked sputum, anorexia and loss of weight. No specific treatment is recommended, but failure to remove the worker from further exposure and failure to institute a strict rest program may lead to pneumonitis. When not complicated by pulmonary involvement the tracheobronchitis usually clears in four weeks or less.

#### Pneumonitis

Two forms of pneumonitis due to exposure to beryllium compounds are recognized, the acute and the chronic form. The acute form presumably results from a heavy exposure during a short period. The onset of symptoms is usually within a few hours or a few days after exposure. The patient complains of cough, dyspnea and substernal pain. The cough may be productive of small amounts of blood. With increase in the severity of

symptoms, the patient becomes extremely short of breath, cyanotic and bedridden, requiring oxygen. Anorexia and loss of weight are nearly always present. Unless influenced by complications the temperature and leukocyte count remain near normal. The acute pneumonitis runs a fairly rapid course ending in death or recovery in a few weeks or a few months. The mortality rate exceeds 10 per cent. At first no roentgenographic abnormalities are observed in the lungs. Later diffuse bilateral changes appear, progressing from a haziness to irregular areas of infiltration and then to conglomerate nodules before complete resolution takes place. Pulmonary fibrosis may remain after recovery.

Chronic pneumonitis follows prolonged exposure to beryllium compounds. It may appear after years of exposure and may fail to become manifest until a long time after exposure has terminated. The early symptoms, usually progressive, are severe dyspnea, anorexia, loss of weight, cough, fatigue and weakness. With the development of extensive pulmonary changes, notably fibrosis, cor pulmonale develops. If fever is present it is usually low-grade. Little if any alteration from the normal is noted in the laboratory examinations of the urine, erythrocyte and leukocyte counts, sedimentation rate, protein, or urea nitrogen. With the advent of right heart failure, secondary polycythemia may develop. Roentgenographic abnormalities of the lungs are described<sup>2,3</sup> as progressing from the earliest changes consisting of a "diffuse fine granularity" to a later distinctly nodular type of lesion. Some enlargement of the mediastinal lymph nodes is frequently present.

The treatment of both the acute and the chronic pneumonitis is the same and consists of rest in bed, oxygen when indicated, and supportive measures. Removal from exposure to beryllium compounds, of course, is essential. Antihistaminic drugs are said to be helpful. Penicillin may be effective in preventing secondary infection or in treating infection if it supervenes. BAL has been used in the treatment of berylliosis without appreciable effect.

#### **Pathology of Berylliosis**

Hardy and Tabershaw in 1946 studied necropsy material from a case of fatal chronic berylliosis and called attention to the presence of granulomatous reactions in the lungs, liver and lymph nodes. However, for the life history of the lesions as studied in the acute and chronic

phases we are indebted to Dutra, who, in 1948, detailed the necropsy findings seen in some twenty cases in which patients had died from the effects of berylliosis. Death in the acute phase was brought about as a result of interstitial pneumonitis and hemorrhagic edema which effected a marked interference with the exchange of alveolar gases. Superimposed infections and failure of the right cardiac ventricle were precipitating factors.

Microscopically the lesions were not highly specific, although a peculiar fibrinoid change was described, the material being brightly eosinophilic and arranged in irregular or serpentine strands. In a few cases there were scattered giant cells and fibroblasts which in Dutra's opinion presaged the formation of granulomas and bridged the gap between the acute and the chronic lesions.

In "chronic" cases terminating fatally, there were, in addition to pulmonary fibrosis, sclerosis of the pulmonary vessels and emphysema, nodular lesions in the pulmonary parenchyma. Microscopically these nodularities featured tubercle-like structures of the so-called hard variety resembling more those seen in sarcoid than the ones which are typical of tuberculosis. In a matrix of brightly eosinophilic material, probably representing the fibrinoid substance previously referred to, were scattered fibroblasts, lymphocytes, histiocytes and giant cells. Histiocytes tended to be round rather than ovoid like the epithelioid cells of sarcoidosis. Prominent in the tubercles were peculiarly whorled or laminated purplish-staining structures which were termed "conchoidal bodies." Some of these bodies were located within giant cells while others were seen to be lying free. Caseation was absent. There was no increased content of silicon and, most importantly, analyses for beryllium gave positive results. The regional hilar nodes and occasionally the liver contained granulomas similar to those seen in the lungs.

Though one cannot make an absolute diagnosis of beryllium pneumonitis except by recovering beryllium from the lesion produced in the tissues, nevertheless, with a history of sufficient exposure, a characteristic clinical course, and typical roentgenographic findings, there should be no more question of the diagnosis than in obvious cases of silicosis.

The following case is one with typical beryllium pneumonitis, a "healed" beryllium ulcer of the finger and an associated enlarged axillary

## BERYLLOIOSIS—NACHTWEY, DOCKERTY AND HODGSON

lymph node from which beryllium was recovered by spectrographic analysis.

### Report of Case

The patient, a white man aged thirty-five years who lived in southern Minnesota, was admitted to the Mayo Clinic on April 7, 1949. He was engaged in the whole-

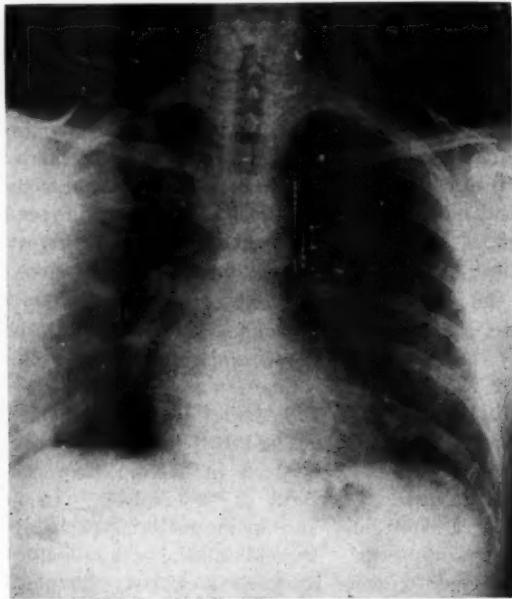


Fig. 1. Roentgenogram of the thorax of April 8, 1949, showing irregular consolidation in the peripheral portions of both lungs with enlargement of the hilar nodes.

sale electrical business and stated that since 1936 he had spent much time in making fluorescent lamps, having blown the glass and coated the tubes.

His previous illnesses included an attack of what may have been rheumatic fever in childhood; pleurisy, drop-sy and heart trouble in 1923; and pneumonia in 1923 and 1939.

For many years he had had a nonproductive cough which had increased in severity during the few months before admission. During the late fall of 1948 he had begun to notice dyspnea on exertion and fatigue. These symptoms had become progressively worse. He also had bilateral thoracic pain of pleuritic nature, and had noted pain in the lower dorsal region which was most noticeable in the morning and improved with activity. For several months before coming to the clinic he had noticed slight edema of the ankles, and for the previous two months, tachycardia and palpitation on exertion. He had never coughed up blood or experienced nocturnal dyspnea. During the two weeks before admission there had been a wheezing during inspiration. His weight had decreased from 205 pounds (about 93 kg.) to 187 pounds (about 85 kg.) in the preceding three months. Diuretics had been administered at home without appreciable effect on the edema or

his symptoms. In 1945 while the patient was in the army a thoracic roentgenogram had been taken and apparently had been considered not to show any abnormality of the lungs. He presented a card from the chest x-ray survey reporting a film in 1948 as "negative."

His appearance when he was seated quietly did not suggest ill health. The color of his face and neck would darken when he lowered his head. He would become noticeably short of breath with slight exertion. There was no dilatation of the superficial veins of the neck. His heart was regular, the heart rate was 90 beats per minute, no murmur was detected, and there was no cardiac enlargement. Persistent fine râles were heard over the lower two-thirds of both lung fields. There was no clubbing of the finger nails, but a slight cyanosis of the nail beds could be seen. The liver and spleen were not enlarged and he had no edema of the extremities. At the base of the nail on the left fourth finger there was a healed scar which he said was the result of a lesion which would occasionally swell, drain some material, and then heal over. He thought this lesion had followed a cut by a piece of fluorescent glass. An abnormally enlarged lymph node was found in the left axillary space.

Laboratory examinations gave the following results: Hemoglobin, 14.8 gm. per 100 c.c. of blood; erythrocytes numbered 4,910,000 per cubic millimeter; leukocytes 6,600 per cubic millimeter, of which 51 per cent were neutrophils, 14 per cent monocytes, 27 per cent lymphocytes, 7.0 per cent eosinophils, 0.5 per cent basophils, and 0.5 per cent myelocytes. A smear of peripheral blood was reported to show a mild monocytosis but otherwise was not diagnostic of disease. Routine analysis of the urine gave normal findings. Though very little sputum could be obtained, examination of acid-fast stained smears showed no tubercle bacilli to be present. No tubercle bacilli grew on culture of two different specimens of gastric contents. No reaction occurred following the intradermal injection of 0.0001 mg. of tuberculin (PPD). The electrocardiogram was interpreted as follows: Rate 85, sinus rhythm; slurred QRS I, slight right axis deviation, diphasic P III, diphasic T III; V-1, inverted T; V-3, diphasic T; V-5, diphasic T. A roentgenogram of the chest was reported to show an irregular consolidation in the peripheral portions of both lungs and some enlargement of the hilar lymph nodes (Fig. 1).

On April 23, 1949, the enlarged left axillary lymph node was removed for pathologic study. Grossly the node exhibited a firmness suggestive of metastatic scirrhus carcinoma. The dry-appearing cut surface was of a mottled gray-white color and it did not bulge.

Microscopically, under low magnification (Fig. 2) there was complete loss of nodal architecture and replacement by noncaseous tubercle-like structures, in a picture immediately identifying the lesion as a granuloma. The tubercles, which varied greatly in size, were isolated in some regions and conglomerate in others. With hematoxylin and eosin the bright pink staining of the tubercles stood out in marked contrast to that of the dark cords of lymphocytes in the surrounding nodal tissue. About every fifth tubercle con-

## BERYLLIOSIS—NACHTWEY, DOCKERTY AND HODGSON

tained one or more refractile dark purple staining acellular structures, the so-called conchoidal bodies. Giant cells were few.

Under higher magnifications (Fig. 3) most of the

spectrographic analysis for beryllium. Dr. Dutra reported that his analysis of the specimen, which weighed 0.3 gm., showed the presence of 0.04 microgram of beryllium in the entire specimen.

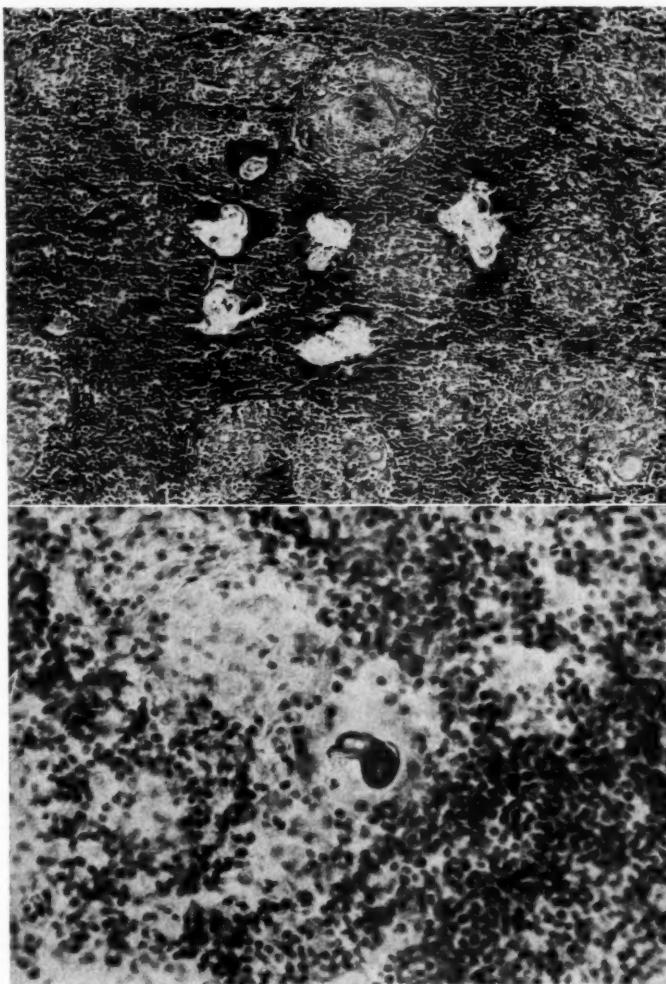


Fig. 2. The photomicrograph of the enlarged lymph node is typical of a granuloma with numerous "hard" tubercles which are pale-staining and lacking in necrosis. Giant cells are few. Conchoidal bodies appear in the clear zones (hematoxylin and eosin  $\times 125$ ).

Fig. 3. Details of a tubercle showing the pale-staining histiocytes and one laminated dark-staining conchoidal body (hematoxylin and eosin  $\times 285$ ).

pale cellular elements were seen to be histiocytes in a fibrinoid matrix which also incorporated a few plasma cells and lymphocytes. The conchoidal bodies appeared to be formed of a laminated particulate substance having some of the staining properties of calcium. They appeared similar to the structures occasionally seen in sarcoid, tuberculosis and regional enteritis, and they were not regarded as being specific for berylliosis. A portion of this lymph node was submitted to Dr. Frank Dutra of the Kettering Institute, Cincinnati, Ohio, for

The patient was advised to remove himself from all contact with beryllium powder or fumes, to undertake a rather strict rest program, and to avoid overexertion. He was last heard from in August 1950, at which time his condition was the same.

Because berylliosis is an uncommon disorder its presence is not likely to be suspected by the

(Continued on Page 929)

## BENIGN TUMORS, NEVI AND PRECANCEROSES

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**V**ERRUCAE (warts) are of several different types, one of the most common of which is verruca vulgaris. These lesions occur most frequently in children on the exposed parts of the body, especially the hands. They may be single or multiple. In adults they tend to be fewer in number. Verrucae may occur any place on the body, even on the tongue and oral mucosa. Ordinary warts may occur under and about the nails in which locations they are especially difficult to eradicate.

Verruca plana (flat or juvenile warts) occur as pin-head sized or slightly larger, smooth, flat lesions which are usually multiple and occur on the face, neck, hands and knees. They are most common in children although they may occur in adults.

Verruca plantaris may be also single or multiple and unilateral or bilateral. The so-called mosaic wart represents multiple, contiguous lesions forming a plaque with a granular surface. The black dots on the surface of plantar warts represent capillary loops.

Acuminate warts are small, pointed projections which when multiple and coalescent form a large, vegetating mass. This type usually occurs in moist areas such as the ano-genital region, axillas or under pendulous female breasts.

**Treatment:**—Ordinary warts are best removed by destructive measures such as the actual cautery or electrodesiccation. In certain cases of periungual or subungual warts x-rays may be preferable. Other methods, usually less reliable, include chemicals such as acid nitrate of mercury, trichloracetic acid and salicylic acid. In multiple warts intramuscular injections of bismuth salicylate may be helpful. In flat, juvenile warts destructive measures are usually impractical. In these cases injections of bismuth, mercury protiodide orally and exfoliating topical applications such as lotia alba or sal alcohol may be effective. Plantar warts are best treated by means of x-rays (1500 to 2000r) sharply localized to the lesions. Destructive measures such as cauterization or

desiccation may occasionally be necessary. Most acuminate warts respond favorably to a 20 per cent solution of podophyllin in alcohol or acetone. Cleanliness and dryness is important to prevent recurrences.

### Fibroma

Fibromas are benign, connective tissue growths which occur as single or flat, sessile or pedunculated lesions of pinkish, ivory or brownish color. They may be soft or hard. Most cutaneous fibromas originate in the perineurium of the peripheral nerves, hence are in reality neurofibromas. Some develop from connective tissue fibers of the corium. The term Von Recklinghausen's disease has been applied to multiple neurofibromas. Excision is the preferred treatment for single lesions.

### Glomus Tumor

These are peculiar vascular tumors usually located in the nail bed at the site of arteriovenous anastomoses which regulate the local and general temperature. Clinically the tumors are small, bluish and extremely tender and painful. The most satisfactory treatment is thorough excision.

### Sebaceous or Epidermal Cysts

These lesions occur chiefly on the scalp, back and scrotum. They are usually fluctuant, tense swellings the size of marbles. The overlying skin is usually smooth and shiny. The content of lesions is cheesy in nature. Secondary infection is rather frequent. Some observers have claimed that malignant degeneration occurs in a small percentage of cases. Although there are various methods of treatment, surgical excision is effective.

### Nevus Pigmentosus (Pigmented Mole)

Pigmented moles are of various sizes, shapes and colors. Hairs may or may not be present and the surface may be smooth or rough. Quiescent moles may be removed for cosmetic reasons or because they occur at sites of irritation. The term junction nevus has been applied to that type in which nevus cells occur at the epidermo-dermal junction. Clinically they are flat, smooth, hairless and usually dark. They are considered potentially malignant and should be

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excised. Most benign moles can be adequately removed by means of destructive measures such as cauterization or desiccation. If a mole presents any sudden change in size, color or surface it should be widely excised.

#### **Epithelial (Verrucous) Nevi**

Such nevi are of epidermal origin and vary greatly in size, distribution, appearance and color pigment. Most of them are hairless. They frequently present a linear distribution. The term ichthyosis hystrix has been applied to localized multiple verrucous nevi, which are usually extensive and arranged in complex pattern. The preferred treatment is surgical removal whenever possible.

#### **Vascular Nevi (Hemangiomas)**

There are several types of vascular nevi. The port wine stain (*nevus flammeus*) is frequently unilateral and occurs usually on the face and neck, although it may appear anywhere. The lesions occur chiefly in infants and children, may be single or multiple and range in color from red to dark purple. They vary greatly in size and shape. They are usually smooth, but may be nodular on the surface. The general opinion prevails that the hazards of any effective treatment of port wine stains are so great that it is best not to treat them at all. There are certain preparations on the market which adequately cover them.

Strawberry marks (*hemangioma simplex*) are nevi in which large vessels are involved. They vary in size from a millimeter to several centimeters and in color from light red to scarlet or purple. They usually occur on the face, shoulders, scalp and neck, but may be found anywhere on the body. They tend to grow but frequently undergo spontaneous involution. Various methods of treatment have been used including injections of sclerosing solutions such as quinine-urethane, x-rays and radium, and solid carbon dioxide. Since so many of these lesions undergo spontaneous involution any form of treatment should be mild and expectant. Heavy doses of x-rays and radium are to be thoroughly condemned.

Cavernous hemangiomas are usually round, bright red or deep purple and spongy. As in other hemangiomas they occur most frequently on the head and neck but may be in other places. The lesions may be nodular, lobulated, polypoid or flat. Larger vessels are involved in this type of

hemangioma. In general, the treatment is similar to that for strawberry nevi.

#### **Leukoplakia**

This is a precancerous lesion which represents a whitish thickening of the epithelium of the mucous membranes, especially of the lips, tongue and buccal mucosa. The lesions occur as superficial patches of various sizes and shapes. The surface is usually glistening and opalescent and often reticulated. There may be verrucous changes, erosions or fissures. Leukoplakia occurs chiefly in individuals past forty. Syphilis is only rarely an etiologic factor. Other predisposing factors are excessive smoking, poorly fitting dentures, jagged teeth and electrogalvanic currents between fillings and dentures.

In many cases observation is the only treatment necessary. Active treatment should be undertaken only if there is ulceration, erosion, fissuring or verrucous changes. Leukoplakia is radioreistant. Destruction with the cautery or desiccator under local anesthesia is frequently effective.

#### **Radiodermatitis**

Radiodermatitis must be regarded as a pre-cancerosis. First degree burns are characterized by erythema with slight burning and itching which disappears after a few days or weeks. In second degree radiodermatitis there is edema, intense erythema and vesication followed in a few days by exudation and erosion and crusting. There is a loss of hair which may be permanent. Months later there may be atrophy and telangiectasia with excessive dryness of the skin followed by pigmentation, the formation of keratoses and later malignant degeneration. In third degree acute radiodermatitis there is extreme necrosis and ulceration with extremely slow healing which may take months.

In chronic radiodermatitis the skin is dry, thin, smooth, shiny and sensitive to trauma. There may be hyper or hypopigmentation. As the dermatitis progresses telangiectasia, keratoses and intense atrophy may develop. Ulceration which frequently develops into carcinoma is not uncommon.

Other disorders which may be complicated by malignant change include ulcers following burns or varicosities, lupus erythematosus and lupus vulgaris.

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## THE EMERGENCY MATERNITY AND INFANT CARE PROGRAM IN MINNESOTA (EMIC)

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THE Emergency Maternity and Infant Care Program for the wives of servicemen in the four lowest grades, and for their infants during their first year of life, was developed as a part of the war effort during World War II. It was financed through the United States Children's Bureau and administered by the State Health Departments. In Minnesota, the program began in July, 1943. The maternal part closed in August, 1948, and the infant care part ended in June, 1949.

A total of 23,057 maternity cases received care in Minnesota at a cost of \$2,238,050.10. The average cost per case was \$97.07. There were 22,394 cases completed after delivery at an average cost of \$46.44 for physicians' services and \$54.25 for hospital care. Physicians attended all cases except for twenty-five attended by osteopaths, fifteen by midwives, and eight by others. There were 347 consultations, a ratio of sixteen per 1,000 cases, and fifty-eight cases required bedside nursing, a ratio of 2.6 per 1,000. Of all deliveries, 98.3 per cent took place in hospitals, with an average stay of nine days per case. This compares favorably with the state rate of 97.3 per cent but is lower than the hospitalization rates in the three large cities for 1948—Duluth 99.7 per cent, Minneapolis 99.4 per cent and St. Paul 99.0 per cent.

All medical and hospital care and immunization for infants were limited to the first year of life. The program provided for 7,515 infants at a total cost of \$388,272.33, an average cost per case of \$51.67. The average cost for physicians' services was \$35.26 per case; for hospitalization it was \$90.61 per case. Consultations were provided in 307 cases, a rate of forty per 1,000 cases. Bedside nursing was provided in thirty-nine cases or five per 1,000 cases. The average stay in the hospital was fifteen days.

### Material and Method

The present study is based on a 10 per cent sampling of the 22,394 completed maternal cases, selecting every tenth application but excluding any

From the Minnesota Department of Health, Division of Maternal and Child Health.

TABLE I. MATERNAL APPLICATIONS  
AND SAMPLE, BY YEARS

	Applications	Cases in Sample
July 6, 1943—July 5, 1944	8,440	547
July 6, 1944—July 5, 1945	7,912	725
July 6, 1945—July 5, 1946	6,374	703
July 6, 1946—July 5, 1947	1,775	224
July 6, 1947—August 1948	301	41
Total	24,802	2,240

incomplete or ineligible case. It should be noted that the number of applications is considerably greater than the completed cases, due to the fact that some incomplete cases were completed in other states and some applications were found to be ineligible under the regulations (Table I). This was especially true during the first year of the program. The entire data were obtained from the physicians' reports submitted to the State Department of Health. Neither the physicians' office records nor the hospital records were studied. The sample under consideration consists of 2,240 completed maternal cases. Infant cases are omitted because the services available were limited in extent and no follow-up was possible.

TABLE II. SAMPLE OF 2,240 CASES FOLLOWED TO  
TERMINATION OF PREGNANCY

Received care in Minnesota .....	2,136
Known to have received care in another state... .	70
Termination before 20th week .....	33
False pregnancy .....	1
Total .....	2,240

The sample contains 2,136 cases that received full care in Minnesota (Table II), seventy that received part of the care in another state, thirty-three that terminated before the twentieth week, and one case of false pregnancy.

Consideration of the age of the mothers is quite interesting (Table III). Mothers in the age group of twenty to twenty-four years totalled 1,083 cases or 48 per cent of the sample. The usual proportion of maternal cases in this age group in Minnesota is about 30 per cent.

The fifteen to nineteen year age group included 14.5 per cent of the cases, in contrast to the usual 7 per cent in the state; 25 per cent in the twenty-

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TABLE III. AGES OF MOTHERS IN MINNESOTA

	EMIC Program No.	Percent	Statewide Percent
Under age 15	0		
15 years	2		
16 years	14		
17 years	48	14.5%	7.0%
18 years	95		
19 years	166		
20-24 years	1,083	48.4%	30.0%
25-29 years	554	24.7%	28.0%
30-34 years	142	6.3%	19.0%
35-39 years	30	1.3%	10.0%
40+	1	0.1%	
Not stated	105	4.7%	3-4.0%
Total	2,240	100.0%	

five to twenty-nine year age group, quite similar to the state proportion of 28 per cent; 6 per cent in the thirty to thirty-four year age group, compared with the state proportion of 19 per cent, and only one case in the age forty-or-over group, in which there are usually 3 to 4 per cent in Minnesota. The safest age groups are considered to be from fifteen through twenty-nine years of age. In the EMIC program, 88 per cent of all maternity cases were in this age group, whereas the state group contains only 67 to 68 per cent. On the other hand, in the age groups of thirty years and older, where the maternal mortality rises progressively, there were only 12 per cent in the EMIC program but 32 per cent in the state maternal cases. This factor was undoubtedly important in the low maternal mortality rate in the EMIC program.

TABLE IV. STAGE OF PREGNANCY AT FIRST ANTEPARTUM VISIT

Stage	No.
Unknown	3
6th wk. or earlier	77
7th wk.	73
8th wk.	84
9th wk.	111
10th wk.	135
11th wk.	104
12th wk.	108
13-16 wk.	350
17-20 wk.	319
21-24 wk.	267
25-28 wk.	230
29-32 wk.	197
33-36 wk.	126
37-40 wk.	56
Total	2,240

The mother's place of residence was in communities of 10,000 or more in 1,230 cases (55 per cent) and in communities of less than 10,000 population in 1,010 cases (45 per cent).

The records on stage of pregnancy at the date of the first antepartum visit are based on attending physicians' statements (Table IV). These records are of special interest, since such data are not

readily available for obstetrical cases in Minnesota. Seventy-seven women visited their physician by the sixth week or earlier. The first prenatal examination was given in 695 cases (31 per cent) within the first three months of pregnancy. Within the first four and a half months pregnancy, 1,210 (54 per cent) had prenatal examinations. By the sixth month there were 1,631 or 73 per cent. On the other hand, 609 (27 per cent) did not have their first antenatal examination until after the sixth month, and fifty-six (2.5 per cent) until the ninth month of pregnancy, in spite of availability of medical care and the fact that the medical bill was being paid by the Federal government. Allowance must be made for the fact that prenatal care may have been obtained in another state, but this information was not supplied by the mother.

TABLE V. NUMBER OF ANTEPARTUM VISITS

No clear	6
No visit before delivery	14
1 visit	48
2 visits	73
3 visits	129
4 visits	150
5 visits	181
6 visits	239
7 visits	314
8 visits	277
9 visits	219
10 or more	590

Antepartum visits to a physician totalled four or fewer in 400 cases, approximately 18 per cent of the sample (Table V). In 1,820 cases (81 per cent), five or more visits were made. Seven or more visits were made in 1,400 cases (62.5 per cent). Ten or more visits were made in 590 cases (26 per cent). Prenatal care was paid for separately with a required minimum of seven visits for the maximum fee. This factor may have contributed to the number of such visits. In the fourteen cases listed as having made no antepartum visits, five were first seen by the physician as "abortions," and eight were first examined at forty weeks. It is possible that prenatal care was given earlier outside of the state.

The duration of pregnancy was determined by the "expected date of confinement" which the physician entered on his report to the State Health Department (Table VI).

Thirty-seven cases terminated in an abortion at the twentieth week or earlier, and twenty-four cases terminated between the twenty-first and twenty-eighth weeks. A total of 1,911 cases (85 per cent) terminated between the thirty-ninth

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**TABLE VI. DURATION OF PREGNANCY TO TERMINATION**

No. weeks	No. cases
Not known	2
20 or less	37
21-28	24
29-37	163
38	116
39	260
40	499
41	576
42	319
43	141
44	44
45	25
46	14
47	6
48	6
49	3
50	1
51	1
52	2
56	1
Total	2,240

**TABLE VII. ESTIMATED AND ACTUAL DURATION OF PREGNANCY IN FOUR "LONG PREGNANCIES"**

Duration of Pregnancy	52 weeks	52 weeks	55 weeks	56 weeks
First antepartum visit	4-18-44	10-19-44	6-12-46	5-10-44
Estimated date of delivery	9-28-44	4-16-45	1-2-47	8-9-44
Actual date of delivery	12-21-44	7-5-45	4-16-47	11-28-44
Duration of pregnancy on birth certificate	Term	40 weeks	Term	Term
Birth weight of infant	7 lb. 6 oz.	7 lb. 1 oz.	8 lb. 15 oz.	7 lb. 5 oz.

and forty-third weeks of pregnancy. It is of interest to note that in 103 cases (4.6 per cent), the duration of pregnancy was apparently from the forty-fourth to the fifty-sixth week. The frequent unreliability of the expected date of confinement by Naegle's rule, based on the last menstrual period, is evidence by a study of Table VII on the four longest pregnancies in comparison with a study of the birth certificates in these cases.

According to the physician's statement, there were 113 premature infants, or 5 per cent of the sample. Twenty pairs of twins were born, 0.9 per cent, or approximately one in ninety births, the usual ratio. There were no triplets nor quadruplets.

The type of delivery was not clear or not reported in 103 cases (Table VIII). Thirty-three were designated as "abortion" by the physician. Spontaneous delivery occurred in 1,681 cases or 75 per cent. If low or outlet forceps deliveries totalling 229 are added, plus eighty-two forceps deliveries where the type was not specified, about 89 per cent of the sample could be classed as spontaneous deliveries. There were forty-nine middle or high forceps cases, twenty-three versions and extractions, thirty-nine caesarian sections, and one operation for ectopic pregnancy.

**TABLE VIII. TYPE OF DELIVERY**

Type	No.	Per Cent
Abortion	33	(1.5%)
Spontaneous, including episiotomy	1,681	(75.0%)
Forceps—low or outlet*	229	(10.2%)
forceps (type not specified)	82	(3.6%)
middle or high	49	(2.2%)
Version and extraction	23	(1.0%)
Caesarian	39	(1.7%)
Operation for ectopic	1	
Not clear or not reported	103	(4.6%)
"Outlet" specified in 67 cases.		

No complications occurred in 1,884 cases (84 per cent). There were 204 obstetric complications (9 per cent), 127 non-obstetric complications (5.7 per cent) and twenty-two both obstetric and non-obstetric complications. Details are shown in Table IX.

**TABLE IX. COMPLICATIONS**

Not clear or no report	3	
No complication of any sort	1,884	(84.1%)
Only non-obstetric complications	127	(5.7%)
Only obstetric complications	204	(9.1%)
Any obstetric complication except infection, toxemia or hemorrhage	60	
Infection only	45	
Toxemia only	34	
Hemorrhage, shock or trauma	44	
Any combination of infection, toxemia or hemorrhage alone	7	
Any combination of infection, toxemia or hemorrhage with other obstetric complications	14	
Both obstetric and non-obstetric complications	22	(1.0%)
Infection, toxemia or hemorrhage involved	17	
No infection, toxemia or hemorrhage involved	5	

Malformations were reported in thirty-one cases (2.8 per cent) and birth injuries in ten cases (0.8 per cent). Deaths from malformations and from birth injuries have averaged over the past years approximately 0.3 to 0.4 per cent of all births in Minnesota. The reporting in this series, therefore, appears valid for congenital malformations, but the number of birth injuries is probably considerably under-reported.

Blood tests for syphilis were negative in 2,059 cases (Table X). There were seven cases giving positive tests, and these women were given anti-syphilitic treatment. In 109 cases or 5 per cent, no blood test was made, even though such tests are made by the State Department of Health free of charge.

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**TABLE X. ANTEPARTUM TESTS FOR SYPHILIS**

Not clear or no report.....	65
Syphilis test not made.....	109
Syphilis test made:	
Negative .....	2,059
Positive and	
Treatment given.....	7
Treatment not given.....	0

One or more postpartum examinations were made in 97 per cent of all cases. No postpartum examination was made in seventy cases (3 per cent of the sample).

In this 10 per cent sample there were two maternal deaths. It would appear that by multiplying by ten we should get the full picture of the EMIC program. This is not true, however—at least not in the case of maternal deaths. Since two deaths occurred in the 10 per cent sample, there would be a total of twenty deaths in the total program or a maternal mortality of 0.9 per 1,000 live births. Actually, a total of only twelve maternal deaths occurred. In order to be able to compare the EMIC maternal mortality rate with the state rate, the four full years of the program (1944-47 inclusive) were studied. During this period the EMIC maternal death rate was 0.7 per 1,000 live births in contrast with a rate of 1.1 for the maternal cases in the state but not in

this program, a significant difference of 36 per cent. It should be noted, however, that the EMIC live births included only 7 per cent of the total state births. A preponderance of mothers were in the safest age group of fifteen through twenty-nine (88 per cent in contrast to the usual 68 per cent), and the group was a favored one economically, since medical and hospital care were provided for the asking. Nevertheless, there is no question that adequate prenatal care, good obstetrical and postpartum care, consultations, blood, antibiotics, hospitalization, and public health programs play a significant role in the reduction of maternal mortality.

As a war effort, this program was actively supported by Minnesota physicians and hospitals. The excellent training of the physicians, the competent care rendered, and the adequacy of facilities are evident in the good results obtained. There was considerable complaint about the burdensome paper work involved, a natural concomitant of government medicine, even though a determined effort was made by the State Department of Health to minimize the required work in this area.

## BENIGN TUMORS, NEVI AND PRECANCEROSES

*(Continued from Page 909)*

### **Keratoses**

There are several types of keratoses. The ingestion of inorganic arsenic may cause discrete, warty lesions which are usually symmetrical and occur most commonly on the palms and soles. Such lesions may or may not appear for several years after the drug has been taken. Arsenical carcinoma may complicate arsenical keratoses.

Verruca senilis (seborrheic keratosis) occurs as multiple, slightly raised light brown or dark brown, rough lesions which usually involve the face, back and chest. They are usually flat and covered by loosely attached, greasy scales which when removed show a raw pulpy base. Epitheliomatous degeneration is extremely unusual. Such lesions may be adequately treated by destructive measures such as cauterization or desiccation.

Senile keratoses occur chiefly in old people, especially those who have been exposed to the

elements over long periods of time. This type of keratosis occurs especially on the exposed parts, namely, the hands and face. They may be single or multiple, discrete, flat, keratotic, grayish-brown or black lesions. They are much firmer, more discrete and more raised than verruca senilis. It has been said that squamous cell epithelioma develops in 20-25 per cent of the cases. Senile keratoses may be destroyed by desiccation or cauterization. They are radioresistant.

Cutaneous horns may resemble the horns of animals. In reality they are similar to senile keratoses except that there is an excessive development of horny material. They occur mostly on the scalp and face, although they may appear in other areas. Squamous cell epithelioma is not infrequently found at the base. The best method of treatment is by surgical excision.

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# History of Medicine In Minnesota

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## MEDICINE AND ITS PRACTITIONERS IN OLMSTED COUNTY PRIOR TO 1900

NORA H. GUTHREY  
Rochester, Minnesota

(Continued from August issue)

**John N. Farrand** (1843-1880), "physician, surgeon and accoucheur," recently graduated from the medical school of the University of Michigan, arrived in Oronoco, Olmsted County, in the autumn of 1870.

A native of Franklin County, Vermont, John N. Farrand was born on a farm near Fairfield on August 2, 1843. He received his academic education in Fairfield, taught local schools for a time, and studied medicine under a physician of Fairfield. About 1868, on leaving for medical college in Michigan, he was married at Fairfield to Helen A. Butler, a daughter of E. S. and S. A. Butler of that place. His wife accompanied him to Ann Arbor.

At Oronoco Dr. Farrand bought a farm in Section 17 of Oronoco Township and there established his home, just outside the village. The house still stood in 1947, although changed from its original appearance. The first child of Dr. and Mrs. Farrand, Corydon Butler Farrand, was born in Ann Arbor. Four other children, Thomas S., Helen S., Albert M. and John were born at Oronoco.

Dr. Farrand was an able physician, a fine man and citizen, who won confidence and esteem in a widespread territory. Social-minded and public-spirited, he was a frequent speaker at public gatherings, an ardent Republican, a member of Oronoco Lodge No. 52 of the Independent Order of Odd Fellows, and for a time clerk of the independent school district of Oronoco.

On June 23, 1880, in his thirty-seventh year, Dr. Farrand died by accident. He and Dr. Marshall T. Bascomb, an Oronocan home on a visit, were fishing from a rowboat in Lake Shady, which was formed, then as now, by damming the Zumbro River at Oronoco. The water was high and the current strong. When Dr. Bascomb suddenly discovered that the boat had drifted and was at the verge of the falls above the old village millsite, he warned his companion and jumped. He escaped but Dr. Farrand was carried over the dam and was drowned. The funeral was conducted at Oronoco by the Odd Fellows of that village, Rochester, Zumbrota and Mazeppa in the presence of nearly 200 persons from surrounding countryside and villages.

In September, 1882, Helen Butler Farrand was married to M. M. Clark, of Oronoco, and she later removed with him to Canada. After the death of Mr. Clark the widow was married to an old acquaintance from Vermont. She spent the remainder of her life in California. The daughter, Helen S. Farrand, was married to George Echer, of Oronoco, in July, 1882. The sons, named in a former paragraph, for many years were residents of southern Minnesota.

In Oronoco the immediate professional successors of Dr. Farrand were

## HISTORY OF MEDICINE IN MINNESOTA

Dr. William A. Vincent, Dr. Edgar A. Holmes and Dr. Hamilton P. Boardman.

**Corydon Butler Farrand** (1870-1912), born on July 17, 1870, at Ann Arbor, Michigan, was the eldest of the five children of Dr. John N. Farrand and Helen Butler Farrand who came to Oronoco, Olmsted County, in the autumn of 1870.

Corydon B. Farrand, of brilliant native abilities and engaging personality, "a born doctor," as old friends have said, received his early education in the schools of Oronoco and Rochester. For a few years in the late eighties he taught district schools near Oronoco and in the autumn of 1890 he matriculated at the medical school of the University of Minnesota, from which he was graduated in 1893. In that day local newspapers commonly mentioned medical students as "doctors," so that during his undergraduate years frequent notes appeared in the press about the activities of Dr. C. B. Farrand. During vacations he studied and practiced medicine with Dr. Charles Hill, of Pine Island; on June 16, 1892, the *Olmsted County Democrat* stated that he had formed a partnership with Dr. R. C. Banks of Pine Island and would "hold forth in and around Oronoco."

In January, 1893, Corydon Farrand was married to Daisy Williamson, of Oronoco, who was then a high school student in Rochester. Mrs. Farrand continued her school work, in Minneapolis during her husband's last term at the university, and in Rochester. In later years she was a proficient teacher in the county schools.

On graduation Dr. Farrand began medical practice in Oronoco, in the honorable tradition of his late father. In that year, 1893, he spent some months in New York in postgraduate work, became a member of the Olmsted County Medical Society and the Southern Minnesota Medical Association and was appointed county physician in the townships of Oronoco, New Haven and Farmington. After 1894 Dr. Farrand practiced intermittently and at various places: in the East, at Red Wing, Goodhue County, at Hammond's Ford, Wabasha County, in South Dakota and in Minneapolis. He died in Minneapolis in 1912 at the age of forty-two years.

**Lloyd Anson Faulkner**, of Saint Paul, born in 1862, was graduated from the Bennett College of Eclectic Medicine and Surgery of Chicago in 1885 and was licensed in Minnesota on June 6, 1885, receiving certificate No. 1063 (E). He was in Rochester, Olmsted County, briefly in October, 1889, as the eighth appointee, as an assistant physician, to the staff of the Second Minnesota Hospital for Insane. His appointment was made during the reorganization of the hospital after the resignation of the superintendent, Dr. J. E. Bowers, and some of the assistant physicians. Dr. Faulkner, who had come well recommended by members of the medical profession of Saint Paul, began his work but after two weeks resigned and returned to Saint Paul. A few years prior to 1907 he was practicing in Lonsdale, Rice County; later he was in Hanley Falls, Yellow Medicine County; before 1916 he was again in Saint Paul, where he resided into the early nineteen thirties.

**Charles Edward Fawcett** (1869-1939), for forty-six years a leading physician of Olmsted County, at Stewartville, was born in the county, at Marion, in Marion Township, on October 13, 1869. Descended from Thomas Fawcett a Quaker who came to America in 1736, he was a son of John Henry

## HISTORY OF MEDICINE IN MINNESOTA

Preston Fawcett and Emily J. Wooldridge Fawcett and a grandson of Thomas Fawcett and Delia McCullock Fawcett.

In 1856 Mr. and Mrs. Thomas Fawcett came from Newcastle, Henry County, Indiana, to a farm home near Mabel, Fillmore County, Minnesota, accompanied by their four unmarried children, John Mahlon, Adoniram and Margaret, and by an older daughter, Mary, her husband Obadiah Stillwell and their two children. In 1858 the family group settled in Marion Township, Olmsted County. Thomas Fawcett died in 1878, his wife in 1888. Their son John H. P. Fawcett, born in Henry County, Indiana, on September 6, 1840, operated a farm one mile east of Marion for ten years; in 1866 he settled in the village, where for thirty-five years, an upright and useful citizen, he was a successful merchant and the village postmaster. The service he rendered the community as a dentist and as a helper to physicians from Rochester who attended the sick in Marion, was told earlier in this history. His marriage to Emily J. Wooldridge, native of Clearfield County, Pennsylvania, took place in 1867 in Sumner Township, Fillmore County. In 1900 Mr. and Mrs. Fawcett removed to Stewartville; their three children were Charles E., Arthur C. and Myrta (Mrs. George Leonard, of Harlingen, Texas, who died on December 6, 1944). Dr. Arthur C. Fawcett, who died in 1948, had been for forty-seven years a leading practicing dentist in Rochester.

Charles E. Fawcett was educated at the public schools of Marion, at Darling's Business College, in Rochester, and at the Winona State Teachers College. After teaching rural schools for two years, he began the study of medicine with Dr. Horace H. Witherstine, of Rochester, in the summer of 1891; that autumn he matriculated at the medical school of Northwestern University, for a course of three years. During vacations in that period he continued to work with Dr. Witherstine and he also spent considerable time as observer and occasionally as helper in the operating rooms of the Drs. Mayo at St. Mary's Hospital. He was graduated from Northwestern University with the degree of doctor of medicine on April 24, 1893.

Dr. Fawcett spent his first three months as a practicing physician in Austin, Mower County, and on December 18, 1893, took up his residence in Stewartville. On November 29, 1894, he was married to Myrta A. Phelps, of Marion, a daughter of Nathan S. Phelps and Margaret Waldron Phelps; Mr. Phelps and his wife were members of families who early settled in Olmsted County. To Dr. and Mrs. Fawcett were born four children: Gale C., Lois M., Frances E. and Donald N. Mrs. Fawcett died on July 7, 1910, aged thirty-nine years. In 1913 Dr. Fawcett was married to Mabel Bates Slater, of Stewartville.

Representative of the highest type of general practitioner and family physician, Dr. Fawcett was respected, trusted and loved. He gave unfailing response to all who needed him, was guide, philosopher and friend as well as physician to his patients, and was all his life a constructive citizen. He long served on the local board of education, for many years as president, and to him has justly been credited in large part the excellence of the Stewartville school system. His business acumen was evidenced during the thirty-two years (1907-1939) that he was president of the First National (later Stewartville National) Bank in the village. A loyal Methodist, like his forebears, he served on the official church board at Stewartville for

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forty-four years. He was an active Mason (A. F. and A. M.), Worshipful Master of the local lodge for four years, and a member of the Modern Woodmen of America. On December 18, 1933, the fortieth anniversary of his coming to Stewartville, the community honored him at a large reception, an account of which, with a summary of the tributes paid him by the men and women of the community and by Fellow physicians, is preserved in the *Stewartville Star* of December 21, 1933.

Dr. Fawcett, ethical, and loyal to his profession, was a member of the Olmsted County Medical Society from 1893, through its affiliation with other county medical societies, the Southern Minnesota Medical Association, the Minnesota State Medical Association and the American Medical Association. He served as village health officer and as county physician for his section. During World War I he was a captain in the United States Army Medical Corps from July 25, 1918, to January 3, 1919; at the Medical Officers' Training Camp, Fort Riley, Kansas, until August 12, 1918; then at Camp Beauregard, Alexandria, Louisiana; thereafter on assignment with the Seventeenth Sanitary Train. A charter member of the Ivan Stringer Post of the American Legion, at Stewartville, he served many years, until his death, as post chaplain. When death came, the captain, as was fitting, was accorded full military funeral rites, at Woodlawn Cemetery in the village.

Dr. Charles E. Fawcett died at his home, from coronary thrombosis, on December 8, 1939, survived by his wife and four children. In 1947 Mrs. Fawcett continued to reside at the family home in Stewartville; Gale C. Fawcett, credit man with the Standard Oil Company, was in Minneapolis; Lois M. Fawcett was head of the reference department of the Minnesota Historical Society, Saint Paul; Frances E. Fawcett (Mrs. J. R. Illingworth), a nurse, was in Spokane, Washington; and Donald N. Fawcett was general purchasing agent, the Flintkote Company, in Ridgewood, New Jersey.

**F. L. Fletcher**, physician and surgeon, who had his office in his residence on College Hill (the address, in 1947, was 406 Fifth Street, S. W.) practiced his profession in Rochester, Minnesota, from around 1860 to his death on January 22, 1870, at the age of sixty-two years. That his professional card appeared for the first time in the *Rochester City Post* of December 2, 1862, is not necessarily evidence of recent arrival: "The doctor is an experienced physician, well acquainted with the many diseases incident in the community, his treatment of which is already proved." Other notes bring out that he was a Presbyterian and a tireless worker for temperance. A final note is, "By the decease of Dr. Fletcher, a devoted circle of kindred has been deprived of one to whom they were most tenderly attached. The church has been bereaved of one of its most worthy and constant members and the community has lost a citizen whose character was without reproach and whose modest worth and many excellencies were appreciated most by those who knew him best." Mrs. Fletcher died in April, 1874, at Windom, Minnesota, where she had lived with her daughter Mary (Mrs. John Hyatt) since the doctor's death; her grave is in Rochester beside that of her husband.

In his reminiscences, several times quoted in this article, the late Charles Nicholas Ainslie traced the relationship between the families of Fletcher, Ainslie and Hagaman, all well known in Rochester and vicinity. The Rev-

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erend George Ainslie, Indian missionary, and pioneer Presbyterian minister in Rochester, first came to the city in December, 1861. His first wife, Mary Jane Hagaman, of Holland Dutch descent, the daughter of Nicolas Hagaman, of Hagaman's Mills, near Amsterdam, New York, had died in January, 1861, leaving two small sons. In September, 1862, Mr. Ainslie returned to Rochester from a trip east, bringing with him his bride, Mary Elizabeth Denny, of Thetford, Vermont, and his two boys, John and Charles. On arrival, because their home on a farm two miles north of Rochester was not completed, the Ainslies went to the home of Dr. Fletcher for a week or two. "In the Fletcher family were three grown children, Nick, deaf and dumb, Susan, who later (February 16, 1864) married my uncle Charles, [Mary] and Violet a younger sister . . ." Of the three sons of Charles E. Hagaman and Susan Fletcher, two became farmers in Olmsted County; the third, Dr. Edwin A. Hagaman, a dentist, in 1947 long had been established in practice in Rochester and, like his grandfather, had his office in his home on College Hill.

Dr. Fletcher's medicine and instrument chest for many years after his death was stored in the attic of the Hagaman farm home. Dr. Hagaman has described it as a "Boxlike affair made of boards over an inch thick, covered with cowhide, hair on, bound with leather strips fastened on with big brass tacks. The instruments and bottles of pills we used as playthings —sometimes we took a pill to see how it tasted or what it did to us. They were sugar-coated and tasted good."

**Daniel O. Fosgate** for a time in the late seventies lived on Cascade Road, Rochester, Minnesota, and was proprietor of the Rochester Dispensary, in the Williams and Pierce Block at the corner of Third and Main Streets. There he gave treatments for catarrhal colds and diseases of the throat and lungs. Dr. Fosgate's professional cards from August, 1878, into March, 1880, stated that he was the only regular, educated physician in Minnesota devoting exclusive attention to these affections, that he had the only known cure for catarrh. He was perhaps more successful as an inventor than as a physician. In 1878-1879 he perfected and patented a sulky plow, which at first was manufactured by the Rochester (Minnesota) Plow Works and later by the New York Plow Company. Three thousand of the machines were made in 1880 for Australian trade. The plow was followed immediately by Fosgate's Challenge Harness Buckle, duly patented, and produced by the O. B. North Company of New Haven, Connecticut. At this period Dr. and Mrs. Fosgate were much in the East and the doctor's cards disappeared from the Rochester press.

**Frederick Edouard Franchere** (1866-1934), eleventh appointee, as an assistant physician on the staff of the Second Hospital for Insane, came to Rochester, Minnesota, in the autumn of 1890 and served until the summer of 1892, when he resigned to enter private practice.

A son of Evariste and Martha Franchere, of French descent, Frederick E. Franchere was born at North San Juan, California, on July 14, 1866. He was graduated from the high school at Lake Crystal, Minnesota, in 1882, attended the state normal school at Mankato in 1883 and 1884, was grad-

## HISTORY OF MEDICINE IN MINNESOTA

uated from the medical department of the University of Minnesota in 1890, and served as intern at the Minneapolis City Hospital.

In Rochester Dr. Franchere, dark, slender, keen, talented, of fine personality, made friends socially and professionally. As an able, ethical and humane physician he did valuable work at the state hospital and in leaving was honored by the entire personnel. In March, 1891, he became a member of the Olmsted County Medical Society; on his initial appearance before the group he read a paper on chloroform and ether as an anesthetic mixture.

From Rochester Dr. Franchere went to Sioux City, Iowa, where he remained three years before returning to Minnesota to practice general medicine and surgery, with special attention to the eye, ear, nose and throat, at St. James, from 1895 to 1902. In this period he was a railroad surgeon for two different roads and coroner of Watonwan County. In 1902 he returned to Sioux City to specialize in eye, ear, nose and throat work, a field in which he achieved distinguished success, as he did in the field of nervous and mental diseases.

Although Dr. Franchere's story from 1902 to 1934 belongs to the history of medicine in Iowa, a few points of interest are mentioned here. A constant student of medicine, Dr. Franchere traveled at home and abroad and contributed consistently to the medical literature. He was a member of county, state, district, national and special medical societies; a member and the secretary of the faculty of the old Sioux City College of Medicine, serving at different times as professor of neurology and professor of ophthalmology and otolaryngology; and he was on the staffs of four Sioux City hospitals. He was a member of St. Thomas Episcopal Church, of civic associations and fraternal organizations, and long was the director and secretary of the Sioux City Fine Arts Society. He was a skilled musician, an artist of note in oils and water colors, a student of astronomy, paleontology, ethnology and anthropology. Admired and respected for his abilities, he was loved for the warm kindness and generosity toward his fellow creatures that distinguished him as early as his Olmsted County days.

Frederick E. Franchere was married on April 30, 1895, to Helen Catlin Hoyt, of Sioux City; he died on April 28, 1934, survived by his wife, two daughters and one son. In 1945 Mrs. Franchere was living in Sioux City. Mabel Catlin Franchere was the wife of Henry L. Kamphoefner, Professor of Architecture, University of Oklahoma, at Norman. Margaret Parrish Franchere was instructor in French in the Sioux City High School. Hoyt Catlin Franchere was associate professor of English at the University of Oregon at Eugene; Professor Franchere and his wife Ruth Frances have one daughter, Julie Victoire. Dr. Frederick W. Franchere, a native of Lake Crystal, Minnesota, and a nephew of Dr. F. E. Franchere, since 1911 has been (1947) a well-known practitioner in that city.

**Hector Galloway** (1828-1899), representative of the best in medicine and surgery of his day, was the first resident physician in Olmsted County and for twenty-four consecutive years was a leading member of the medical profession of the county. In the spring of 1855 he established his residence in the village of Oronoco, having first visited the site in March, 1854, with the three men from Allamakee County, Iowa, who founded Oronoco. In October, 1864, he came to Rochester.

## HISTORY OF MEDICINE IN MINNESOTA

Born in Mansfield Township, Cattaraugus County, New York, on June 28, 1828, Hector Galloway received his early education in the local schools. At the age of eighteen years he began teaching school at Ellicottville, and for several years taught in winter and studied medicine under a preceptor the remainder of the year. In 1852 he entered the Geneva Medical College, at Geneva, New York, from which he was graduated on completion of the required two courses of lectures. Shortly afterward he came to McGregor, Iowa, on the Mississippi River, where he practiced medicine until his removal to Oronoco.

Dr. Galloway spent nine useful years in Oronoco, practicing medicine ably under pioneer conditions and otherwise serving the region. A talented writer, he was chief editor of the *Oronoco Courier*, a seven column newspaper established by a group of Oronoco businessmen in the autumn of 1856, the first paper published in Olmsted County and conceded to be one of the best country newspapers in the state. The depression of 1857 together with the election the next year of Dr. Galloway and the local editor, E. Allen Power, as state senator and representative respectively, brought the paper to an end. Although the legislature did not convene that term, Dr. Galloway held his office and reported for work in January, 1860. He became superintendent of schools of Oronoco Township when the schools changed to the township system in 1860. With the coming of the Civil War he played an active part in local military affairs. When the citizens of Oronoco on April 25, 1861, met to organize the Oronoco Guards, of the Olmsted County Volunteers, Dr. Galloway was chairman, and later was fifer of the guards. On May 21, 1864, he was appointed surgeon of the Thirteenth Regiment, Minnesota State Militia, with rank of major, and thereafter was official examiner, at Oronoco, of persons claiming exemption from military duty. After he settled in Rochester, in October, 1864, he was for a time on duty on the Enrollment Board of the First Congressional District.

In Rochester Dr. Galloway first had his office in his home, a roomy frame house on Prospect Street (now Third Avenue, S. W.) opposite the site of the present post office. By June, 1866, he had rooms over the Woodard and Ells Drugstore on Broadway; again in his home in 1869; and from 1875 to 1879, in partnership with Dr. Francis A. Sanborn, in rooms facing on Zumbro Street, back of Hargesheimer's Drugstore.

Tall, handsome, vigorous, weighing 212 pounds (a weight that qualified him for membership in the social "Marrowfats," mentioned earlier in this chronicle), gentle and kindly, of superior culture and fine feeling, deliberate in diagnosis, on excellent terms with his colleagues, Dr. Galloway captured the fancy and won the affection and respect of the community. Venerable citizens recall, as do descendants of early residents, that he was the first physician who attended their families. His practice was comprehensive. He and Dr. W. W. Mayo often consulted together professionally and assisted each other in performing surgical operations. Today the consensus is that Dr. Galloway was a good physician and surgeon of unquestioned integrity. His sense of ethics was such, in fact, that it led to impatience with well-meaning persons who inquired too solicitously after their sick neighbors: Once in the Oronoco days as the doctor was returning with team and driver from a call at Genoa, a farm resident came running to the road, his arms flailing, to stop the carriage. "How is Mrs. . . . ?" he called. "She's sick; drive on, Sam," said Dr. Galloway.

## HISTORY OF MEDICINE IN MINNESOTA

"His one fault," it is said, "was an incapacity to push himself forward to the station to which he was justly entitled." In 1866, for the second time a candidate for senator, he lost the campaign because, as he said, he could not travel around admiring pigs and kissing babies. He served, however, in various civic and professional capacities: member of the city board of health of Rochester with Drs. J. S. Allen and W. W. Mayo; county coroner at intervals from 1865 to 1873; school commissioner and member of the board of education from 1865 to 1867; a physician to the Olmsted County Poor Farm in 1870 and in county work thereafter; and as preceptor of medical students. He was a Mason, member of Rochester Lodge No. 21 (A. F. and A. M.) and a Knight Templar; he had the sword and probably the rest of the appropriate regalia and wore a Knight Templar charm on his watch chain.

Dr. Galloway's name figured in records of medical organizations. He was a founder, on April 15, 1868, of the original Olmsted County Medical Society; head of the committee on theory and practice of medicine and one of the committee to devise the first fee bill; and was a faithful contributor to discussions and debates, which covered a range of subjects from medicine and surgery to ethnology and physics. At a meeting on February 13, 1869, he read an essay on the philosophy of disease, in which, the *Rochester Post* reported, he announced "novel theories respecting the origin and progress of disease; the exposition abounded in apt illustrations and logical arguments in their support. Maintaining that all diseases have their source in interruptions of the process of nutrition, the doctor divided them into two classes, viz: first, those springing from causes extraneous to the system; and, secondly, those proceeding from vicious qualities of the organ itself . . ." Cancer, scrofula and consumption he named as examples of disease caused by imperfections of the organism in the task of nutrition. It was at this meeting that Dr. Galloway made his prophecy, still quoted locally in 1947, that the time would come when medical science would find remedies for all diseases but cancer.

Dr. Galloway became a member of the Minnesota State Medical Society on February 1, 1870, and for seven years was an active member, serving on various standing and special committees, submitting reports on typhoid fever, intermittent fever, diphtheria and German measles, and giving occasional reports of unusual cases seen in his practice. When the society met in Rochester in June, 1872, Dr. Galloway was active in the proceedings. After 1876 his name did not appear on the roster.

Not long after his arrival in Oronoco Hector Galloway was married there to Clarissa Alice Paige, one of the nine children of Mr. and Mrs. Foster Paige, pioneer settlers from St. Albans, Vermont. Two other Paige daughters were married to men who at some time were associated with medicine in Olmsted County; Caroline was the wife of George B. Ayres, of Rochester, a student of medicine under Dr. Galloway and later a prominent physician of Omaha, Nebraska; and Augusta, of Dr. Charles E. Teel, who from 1865 to 1880 was a leading physician of Olmsted County resident in Eyota.

Dr. and Mrs. Galloway had one child, Lucretia (Lulu) Maria Galloway, a beautiful and talented girl, who was married in Rochester, in October, 1878, to Dr. John Henry Spaulding, a native of Maine who came to Rochester from Sauk Center, Minnesota, a dentist who studied under Dr. J. M. Williams, Rochester's earliest dentist. In 1879 Dr. and Mrs. Spaulding removed

## HISTORY OF MEDICINE IN MINNESOTA

to Fargo, Dakota Territory; their only child, Hector Galloway Spaulding, was born in Fargo on August 2 of that year. In October, 1879, Dr. and Mrs. Galloway also settled in Fargo, and there Dr. Galloway entered practice; On March 16, 1886, he was licensed under the territorial medical practice law of 1885. After some years in successful practice and in profitable speculation in lands in Dakota and western Minnesota he removed with his wife, about 1890, to Tacoma, Washington.

The fortunes of Dr. and Mrs. Spaulding affected the lives of Dr. and Mrs. Galloway. In 1886 Dr. Spaulding with his wife and his son went to Paris, France, for graduate study (his son has said, on the advice and encouragement of Dr. W. W. Mayo), and there remained, achieving a distinguished career as practicing dentist and professor of operative dentistry at the "Dental School of France." He retired in 1917. During World War I he was associated with the American Hospital in Paris and also worked with the Red Cross, as a captain, in a rehabilitation hospital for American soldiers which was housed in a castle near Bordeaux. He died in Nice in March, 1938. Lucretia Galloway Spaulding preceded her husband in death by forty-seven years; when she died in Paris in March, 1891, her husband and her son brought her body to Minneapolis for burial in Lakewood Cemetery. After her daughter's death Mrs. Galloway embraced theosophy and psychial research and in her investigations over a period of years traveled alone into many countries. Later she studied osteopathy in Chicago and became a licensed osteopath in Iowa and South Dakota and elsewhere, until in 1921 she went to Washington, D. C., to make her home with her grandson.

Dr. Galloway in the autumn of 1894 came back alone to Rochester, renewed his membership in the county medical society, and here again practiced medicine until May, 1895, when he returned to Oronoco, after an absence of thirty-one years. Failing in health and fortune, for about two years he made Oronoco his headquarters, spending winters with Dr. and Mrs. Ayres in Omaha. In 1897 he returned to Fargo, and early in 1899 to his boyhood home in New York. Dr. Galloway died on March 4, 1899, at the home of his brother in Otto, New York. His body was brought for burial beside his daughter's grave in Lakewood Cemetery, Minneapolis. His wife, Clarissa Alice Paige Galloway, died in Washington, D. C., in February, 1922; her ashes rest beside the graves of her husband and her daughter.

It has been said of Dr. Galloway, "If one can leave such a memory as he left in Rochester, his life is a success, though he dies in poverty and on charity. He instinctively practiced the precept, 'What we do for ourselves dies with us; what we do for others lives and is eternal.' He may have felt without realizing it that he was the only textbook that some people would ever read."

In 1946 Dr. Galloway had two living descendants: a grandson, Hector Galloway Spaulding and a great-grandson, John Henry Spaulding, II. Hector G. Spaulding, whose career was of absorbing interest to the doctor, was educated at the Lycée Janson de Sailly in Paris; at the Minneapolis Central High School and the University of Minnesota; and the Harvard Law School, from which he was graduated *cum laude* in 1903. After ten years of practice of law in New York, Minnesota and Illinois he taught law at Stanford University. Since 1920 he has been professor of law at

## HISTORY OF MEDICINE IN MINNESOTA

George Washington University. He was married in 1922 to Augusta de Laguna of Oakland, California; Mrs. Spaulding, a graduate in law, was in 1945 a lawyer for the National Labor Relations Board. John Henry Spaulding, II, in that year was with the American Army of Occupation in Japan.

**Eric Olonzo Giere** (1868-1942) was the twelfth appointee, in 1892, as an assistant physician on the staff of the Second Hospital for Insane at Rochester.

Dr. Giere, an eminent physician and surgeon of Minnesota, died on February 12, 1942, in Minneapolis, after fifty years in active practice. Many detailed accounts of his career have been published: in state histories, in records of numerous medical organizations and, particularly, in **MINNESOTA MEDICINE**, at the time of his death, and in the chronicle of medicine in Dodge County by Eckman and Bigelow. The present notes serve to link him to Olmsted County.

Born near Deerfield, Dane County, Wisconsin, on April 10, 1868, Eric O. Giere was a son of Ole Nelson Giere and Inger Himle Giere, both of whom were natives of Norway. His great-grandfather, Erick C. Himle, had been a physician at Voss. Inger Himle came to America in 1846 and Ole Giere in 1850; they were married in this country and made their first home on a farm near Deerfield, Wisconsin. In 1869 they came to southern Minnesota and settled in Vernon Township, Dodge County, adjoining Rock Dell Township, Olmsted County; in this community Eric O. Giere spent his youth and obtained his early education at the district school of Rock Dell a mile from his home.

Immediately on graduation from the University of Minnesota College of Medicine and Surgery on June 2, 1892, Dr. Giere came on appointment to the state hospital at Rochester, where he served three months. On July 6, 1892, at a meeting at the office of Dr. H. H. Witherstine, he became a member of the Olmsted County Medical Society. While in Rochester, on October 7, 1892, he received his license, No. 273 (R) to practice medicine in the state. In Rochester the young physician, ethical and loyal, made friendships among the local profession that were to be lifelong.

On leaving Rochester to enter private practice, Dr. Giere was first in Madison, Lac Qui Parle County; and subsequently in Hayfield, Dodge County; again in Madison, for seventeen years; in Watertown, South Dakota; in Saint Paul from 1921 to 1927; and in Minneapolis from 1927 until his death. He was survived by his wife, four daughters and four sons. The three sons who became physicians, Richard Waldorf Giere, Joseph Christianson Giere and Carl Norman Giere were associated with their father in the Giere Clinic, in Minneapolis, and since his death have continued the work. During World War II Dr. C. N. Giere and Dr. J. C. Giere were captains in the United States Army Medical Corps.

*(To be continued in October issue)*

# President's Letter

## ARE YOU AN 18 PER CENTER?

After the unpredicted 1948 election results, some of the political leaders in Ohio decided to pick a typical county and study the returns in an attempt to ascertain how and why the balloting went as it did. What they found out was what political scientists have constantly observed: that a light vote is not a representative vote, nor, more important, is it analogous with the principles of "by the people" government.

They discovered that many "responsible" citizens were irresponsible concerning this vital obligation of citizenship—among them 18 per cent of the physicians of that county and 22 per cent of the physicians' wives. This happened in Ohio; undoubtedly its counterpart was experienced throughout the country.

From an unAmerican vote has evolved an unAmerican shift to security planning, over-government and a decline in traditional personal freedom and initiative.

Now we have an opportunity to rectify some of the mistakes and omissions we have made in the last few years. It is possible, through individual responsibility and freedom to avoid collective security and control. Now and in the immediate future, the nation will be subjected to tremendous ideological assaults. We must have state and national legislatures composed of honest alert intelligent senators and representatives, who will be quick to recognize threats to our way of life and government and will move to avert those evils.

Your vote and the votes of your family and friends may be the pivotal point upon which an election return will swing. And, from there the consequences widen out into almost unbelievable areas; what began as a simple task—the marking of an election ballot—could well be the most important contribution you have ever made to the cause of democracy and good government.



President, Minnesota State Medical Association

# ♦ Editorial ♦

CARL B. DRAKE, M.D., *Editor*; GEORGE EARL, M.D., HENRY L. ULRICH, M.D., *Associate Editors*

## MORE PHYSICIANS IN SERVICE

WITH the onset of hostilities in Korea in June and the evident need for more fighting men, it became perfectly clear that Uncle Sam would need more medical officers. How many will eventually be needed is anyone's guess. The most equitable way of obtaining the additional medical personnel is a difficult problem to solve.

As has been frequently said those young physicians who have received their medical education at government expense have a moral, if not a legal obligation to enlist now that there is a pressing need. If all the members of this group were to enlist—an eventuality not likely to occur—the services would still need a certain number of reserve officers of experience in the various specialties and of various ranks.

By October 1, the Army will have recalled 1,582 reserve officers of the Army Medical Service, which will include 734 physicians. Recall quotas have been assigned to each of the six Army areas in the United States based on professional population rather than on the number of reserve officers in the area. Volunteers will be credited to the quota of the Army area in which they reside. To stimulate voluntary enlistment, medical officers who enlist will receive \$100 a month above the usual pay for each rank.

Additional calls for enlistments in the near and distant future will require additional professional personnel. To care for the 95,000 more men to be called to service in November an estimated 300 to 400 more doctors will be needed. More economy in the use of doctors in service than was evident in World War II will be employed; in the case of a 1000-bed general hospital only three physicians and two nurses will initially be called, the balance to stay in civilian life until receipt of warning orders for hospital deployment.

It is perhaps not surprising that enlistment of physicians has not supplied the need. Those who served in World War II and have only recently resumed private practice are naturally loath to pull up stakes and again don a uniform. Those

who have never served have only a vague idea of the present and future need of their services. The present crisis does not have the appeal that a future need for an all-out effort may soon present.

It is not surprising that the AMA Board of Trustees went on record on August 12 approving the doctor-draft bills in principle. They, however, approve the drafting of physicians only for service in the war effort—not to care for veterans, civilian employees except outside the continental limits of the United States, or dependents of military personnel, except in case of dependents outside the country or in areas where adequate medical care cannot otherwise be provided.

To meet the present pressing need, Minnesota is required to furnish twenty reserve army doctors—a certain number of different ranks. Every effort is being made in the selection of these officers not to disrupt the civilian supply, nor intern, resident or postgraduate training. A committee of the Minnesota State Medical Association has been appointed to co-operate with the Military in order to cause as little disruption of medical training and practice as possible.

We may as well face the facts, however, that we must be strong in a military way, if we are to preserve our freedom and support the United Nations in its guarantee of the freedom of its member nations. A strong military force requires physicians.

## BLOOD BANKS

THE EXTENT to which blood transfusion has come to be used therapeutically is strikingly brought out by the Survey of Blood Banks in the United States recently completed by the Bureau of Medical Economic Research of the American Medical Association under the direction of Frank G. Dickinson and Everett L. Welker.

At the time of this report, there were 1,648 blood banks located in 951 different cities in the country. In this number are included 1,571 hospitals, 46 non-hospital blood banks, and 31 Regional Red Cross Blood Centers. These cen-

## EDITORIAL

ters have been increased from 31 to 34, according to last report. While about half of the hospital blood banks purchase blood and sell it to recipients, about two-thirds of these banks allow for replacement of blood from donors in lieu of payment for blood used. Some of the non-hospital blood banks make only nominal charges for the processing of the blood and count on voluntary donations of blood by members of civic groups for maintenance. The Red Cross Blood Centers do not purchase or sell blood and depend entirely upon donors for maintaining their supply. None of the centers administers blood, but distribution is free to hospitals which are allowed to make a nominal charge for handling. The cost of the processing and handling of the blood is borne by the Red Cross, which, of course, is supported by thousands of contributors.

The estimate of blood dispensed in a year is 2,532,452 units of 500 c.c. by the hospital banks, 306,130 units by the non-hospital banks and 427,565 units by the Red Cross. No estimate was made of the amount of plasma used. It is further estimated that all the blood banks and centers now have the equipment and personnel to bleed 5,500 donors simultaneously, or 440,000 in a forty-hour week. Thus the country seems pretty well supplied with facilities for obtaining and processing blood which can be easily expanded in case of an emergency. Possible future war need, of course, was in part responsible for the continuation of the Red Cross Centers. In case of a wide extension of the present Korean conflict, all the present facilities for handling blood would be vital.

The co-operation of the various agencies in Minnesota has been most satisfactory. Unfortunately, this has not been the case throughout the country. It is positively disgraceful that there should have been rivalry to the point of opposition between the American Association of Blood Banks and the Red Cross and that the Association has tried to put pressure on many State Medical Associations to instruct their AMA delegates to vote against approval of the Red Cross program. And this in spite of the precautions taken by the Red Cross of having the approval of the local medical societies before centers were established and in spite of the fact that in each state the program is controlled by a committee of the State Medical Association. The charge has been made that the Red Cross program smacks of socialized medicine. Since the program is supervised by medical societies and closely resembles in

operation many of the independent blood centers, there would seem to be little excuse for the criticism. Fortunately, no resolution to discredit the Red Cross was even submitted to the meeting of the House of Delegates at San Francisco.

The wisdom of the establishment of the Red Cross centers would seem to be convincingly confirmed by the recent designation of the Red Cross as the official agency for the procurement of blood for the armed forces as in World War II.

Some ten years ago the Hennepin County Medical Society began discussing the possibility of establishing a central community blood bank in Minneapolis. Through the co-operation of a number of civic agencies, funds were collected, a building purchased and remodeled at 1914 LaSalle Avenue and on November 11, 1948, dedicated as a memorial to the service men of World War II who did not return. The bank began operating December 1, 1948, as the Minneapolis War Memorial Blood Bank. It is an independent non-profit organization. Blood is not bought or sold, and its supply is maintained in part by blood replacement on the part of relatives and friends of the recipients. Donor clubs have been formed, membership entitling the member and his family to free supply in case of need. The Center stocks the refrigerators of the hospitals of Minneapolis with various types of blood. A service fee only is charged for typing, Rh determination, and serology testing. The Minneapolis Blood Bank is willing to assist in setting up banks in neighboring communities with the approval of the local medical society and civic groups. How this was done in one specific instance is well told by Dr. Borgerson in the August issue of MINNESOTA MEDICINE (p. 773). Co-operation between such outlying centers and the Minneapolis War Memorial Blood Bank would be to mutual advantage.

Recently, arrangements have been made between the Red Cross Blood Center in Saint Paul and the Minneapolis War Memorial Blood Bank whereby an interchange of credit will be allowed between the two banks to patients entitled to blood from either bank. This example of a fine spirit of co-operation between two banks is highly commendable. After all, both institutions have the same purpose of providing a costly remedy, valuable in peace and war, at a nominal price within the reach of everyone.

# MEDICAL ECONOMICS

Edited by the Committee on Medical Economics  
of the  
Minnesota State Medical Association  
George Earl, M.D., Chairman

## FSA CALLED SEED BED OF SOCIALISM

Beginning a new series on seed beds of socialism, a recent issue of *Nation's Business* calls the Federal Security Agency an "unknown visitor in the life and home of every American . . . well on its way toward changing the individual thinking as well as the social, economic and political structure of the nation."

Comparing it to other federal departments to convey the scope of the agency's control, the article says:

"It reaches every citizen, either in benefits or in taxes. Among older departments, State is concerned with foreign affairs, Commerce with trade, Labor with workers and employers, National Defense with military security and Agriculture with one class of producers. Only Federal Security is all-embracing in its relation to the human beings who make the nation.

"Other nations are solicitous for the welfare of their people from the cradle to the grave, but this agency goes farther. It gives prenatal advice for babies, guides them later through childhood, cares for workers and aged and succors the relicts of the departed."

## Aim to Create Socialist State

Unpopular as the idea of socialism is, some of the key supporters of the agency and what it stands for have shamelessly confessed that its chief goal is to establish a welfare state:

"Some of its key employes and ardent supporters have declared frankly the final goal of this pretentious agency is to abolish the present democratic form of government and to create a socialist state where officials will be dominant over the individual and his activities—in the home, in trade or in security—the attractive name so often used—while the youth are indoctrinated for the future."

## The List Grows Longer

Helping this "all-embracing" agency to indoctrinate youth is a budget in 1950 which is larger than that of any other federal department except

National Defense—\$1,591,000,000. Its organization includes 35,363 full-time and 4,127 part-time workers; it has twelve regional offices and many National Institutes of Health and Health Workshops in cities and towns.

The number and variety of divisions and bureaus which it administers seems phenomenal, and, if the most ardent supporters of government control have their way, the list can extend almost endlessly. The Federal Security Agency administers Social Security which includes Public Assistance, Old-age and Survivors Insurance, the Children's Bureau, and Federal Credit Unions; Employes' Compensation; Public Health Service including quarantine and 20 odd hospitals; a printing house for the blind in Louisville; Food and Drug Administration; Vocational Rehabilitation, and the Office of Education. In Washington it operates two big public hospitals—St. Elizabeth's and Freedmen's—Howard University for Negroes, Gallaudet College and Kendall School for the Deaf.

## Keynote Found

With these and many more institutions and agencies under its wing, and with an annual distribution of \$1,000,000,000 to states, "FSA is in position to punish any state—almost any citizen—that dares to challenge any of its policies or directives." Looking through the manual of the Social Security Agency, the keynote of these policies is made clear:

"Social security and public assistance are a basic essential for attainment of the socialized state envisioned in democratic ideology, a way of life which so far has been realized only in slight measure."

If this is "only in slight measure," Americans can well ask, "What is considered a completely full measure?"

## CONGRESSMAN DISCUSSES SOCIALISM —AMERICAN VARIETY

Adding warning and emphasis to the example of the type of controls which the Federal Security Agency is slyly developing, Congressman Ralph W. Gwinn, New York, spoke at a meeting of the Medical Society of New York recently, quoting noted witnesses to testify that socialism is creeping surely into American life.

Mr. Gwinn quoted "America's greatest living Socialist, Norman Thomas," whose words underscore the fact that socialist trends are the greatest threat ever to come on the American scene. Running for the presidency since 1928, Mr. Thomas was somewhat pleased in 1936, after four years of the New Deal, that it "had in some fashion carried out our immediate demands."

Mr. Gwinn cited the words of Communist leader, Earl Browder, declaring that American capitalism can deteriorate into socialism, thence to communism, unless Americans are vigilant:

"State capitalism leaped forward to a new high point in America in the decade 1939-1949. It became overwhelmingly predominant in every major phase of economic life, and changed the face of politics. State capitalism has progressed further in America than in Great Britain under the Labor Government, despite its nationalization of certain industries, which is a formal stage not yet reached in America; the actual, substantial concentration of the guiding reins of national economy in governmental hands is probably on a higher level in the U. S. A.

"The general trend to state capitalism signifies a yielding of capitalist private ownership for more socialized forms of the economy and results in a more socially organized economy. . . . Each important measure of state capitalism is a part of the whole movement which results in the socialist transformation.

"State capitalism is the invasion of planned production and points the way to Socialism. . . . The U. S. Government has emerged as the greatest trust of all, the super-trust whose economic operations dwarf the largest private corporation. . . . The trend to state capitalism marked the final monopolistic stage. After monopolistic capitalism the only higher stage possible is the fully-socialized society."

And, the late leader of British Socialists, long noted for his authoritative statements on socialism and what causes it, was also quoted by Mr. Gwinn. Harold J. Laski says:

"Since it is the Socialist belief that the central principles of the New Deal have come to stay, the Socialist Government in Britain can have the confidence that America will advance in a collective direction and at an increasing tempo."

Another of the greatest contemporary authorities on the subject of economic socialism and communism has declared that leftist policies are more evident in America than in western Europe. John Strachey, England's War Minister, helps Mr. Gwinn's argument by saying:

"Outside the United Kingdom and the Scandinavian countries, the U. S. Administration today is probably more to the left in general economic policy and point of view than any of the governments of western Europe."

### The "Scare Words" Again

Supporters of federal medicine, increasing social security and the whole gamut of expanding government control measures can ridicule the use of such terms as the "welfare state" and "socialism" by calling them mere "scare words," like President Truman did, not long ago. Many of them would think twice after reading a new booklet written by former Senator Joseph H. Ball entitled "Where Does Statism Begin?" The pamphlet points out that the welfare state is a state in which the government assumes and tries to carry out the responsibility of assuring a certain standard of living and economic security for everyone in terms of housing, food, clothing, health services and education, regardless of the individual's age, ability, productive effort or moral deserts.

Words which have gained new definitions through common usage receive comment in the pamphlet:

"Statism is the concentration of more and more power in the hands of government as an inevitable result of trying to substitute government planning of production, distribution, and pricing for the free market mechanism of capitalism.

"Socialism, welfare state and statism are interchangeable to this extent: their political and economic promises can't be carried out without new and extensive concentration of power in the hands of the central government."

### Defining Not Enough

Individual Americans, states *New York Medicine* recently, will realize that mere definition of words is only the beginning of understanding:

"There is a price tag on human liberty and freedom in any human endeavor. That price is the willingness to assume the responsibility of being free men. Payment of this price is a personal matter with each of

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## MEDICAL ECONOMICS

us. It is not something we can get others to pay for us. There is a very human impulse to let others carry the responsibility of freedom, and the work and worry that accompany it—while we share only in the benefits!

"In these present days, power is, wittingly or unwittingly, conferred by a people upon others. Oftentimes it appears as if this power were forcibly wrested away, but it is not. People give their freedom away. By vote we give away our hard-won rights. Factors, which bring a change, most frequently go unnoticed because of apathy. Only when an evil is firmly entrenched do we become aware of its insidiousness. While an evil is quietly and unobtrusively establishing itself, people go about their business, performing their daily tasks saying: 'This can't do that to us,' and all the time it is being done . . . right under their noses!"

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### MINNESOTA STATE BOARD OF MEDICAL EXAMINERS

230 Lowry Medical Arts Building

Saint Paul, Minnesota

Julian F. Dubois, M.D., Secretary

### MINNEAPOLIS MAN PAYS \$100 FINE FOLLOWING CONVICTION FOR VIOLATING FEDERAL FOOD, DRUG AND COSMETIC ACT.

*Re. United States of America vs. Otto W. Dressler, an individual trading as Gold Seal Laboratories.*

On June 12, 1950, Otto W. Dressler, seventy-two years of age, 204½ 10th Street South, Minneapolis, paid a fine of \$100 in the United States District Court at Minneapolis, following his conviction by the Hon. M. M. Joyce, of violating the Federal Pure Food and Drug Act. Dressler was convicted of "having unlawfully shipped in interstate commerce a certain device, to-wit, Polizer, in violation of the Federal Food, Drug and Cosmetic Act, in that said device was misbranded within the meaning of 21 U.S.C. 352 (a)." The information filed by the Government alleged that accompanying the device was a circular entitled: "The Pol-izer (Miracle of the Age) Why Suffer." The information also alleged that the statement represented and suggested that Polizer was efficacious in the cure and treatment of over 60 ailments from arthritis to heart trouble. It was the contention of the Government that the device was misbranded because it was not in fact efficacious in the treatment of such ailments.

In finding Dressler guilty, Judge Joyce stated that expert witnesses of the highest rank in the State of Minnesota had studied and tested the device and found it wholly useless and of no therapeutic value. Judge Joyce further stated that not one scintilla of evidence was produced by the defendant that there is any penetration into the human body of any of the so-called elements of the Polizer or of polized water.

The case was tried for the Government by Mr. Clifford Hansen, Assistant United States Attorney of Saint Paul. The preliminary work in the case was done under the direction of Mr. Chester T. Hubble, Chief, Minneapolis District Pure Food and Drug Administration.

### MINNEAPOLIS WOMAN SENTENCED FOR CRIMINAL ABORTION

*Re. State of Minnesota vs. (Mrs.) Val A. Ramer.*

On August 22, 1950, Mrs. Val A. Ramer, seventy-six years of age, 809 Douglas Avenue, Minneapolis, was sentenced by the Hon. Rolf Fosseen to a term of not to

exceed three years in the Women's Reformatory at Shakopee, Minnesota. Mrs. Ramer had entered a plea of guilty on June 6, 1950, to an information charging her with the crime of abortion. Mrs. Ramer also admitted a previous conviction in 1936. Because of the defendant's age, Judge Fosseen suspended the sentence and placed the defendant on probation for a period of five years. Judge Fosseen warned Mrs. Ramer that not even her age would save her from going to the Women's Reformatory if she became involved, in any manner, in any further violation of the laws of the State of Minnesota.

Mrs. Ramer was arrested on May 4, 1950, by Minneapolis police officers following the hospitalization of a twenty-one-year-old Minneapolis woman suffering from the aftereffects of a criminal abortion. The Minnesota State Board of Medical Examiners was asked to assist in the case and legal counsel for the Medical Board obtained a signed statement from Mrs. Ramer in which she admitted having performed the abortion by means of a probe and packing the cervix with gauze. Mrs. Ramer also admitted receiving \$150 for her services. The abortion was performed in Mrs. Ramer's apartment. Mrs. Ramer also admitted that she had performed other abortions averaging about one per month. Mrs. Ramer was convicted by a jury in the District Court of Hennepin County on April 24, 1936, of the crime of abortion. At that time, a Minneapolis physician, now deceased, was also convicted with Mrs. Ramer. Mrs. Ramer holds no license to practice any form of healing in the State of Minnesota.

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### BERYLLIOSIS

(Continued from Page 907)

clinician. Failure to recognize the cause of the trouble and failure to remove the patient from further exposure may result in irreparable damage to his health or cause his death.

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### HEALTH RESOURCES ADVISORY COMMITTEE

Dr. Harold S. Diehl, dean of the medical sciences at the University of Minnesota, has been named to the new Health Resources Advisory Committee of the National Security Resources board. The appointment was made by W. Stuart Symington, chairman of the board.

Purpose of the committee is to assist and advise the National Security Resources board on problems of the nation's health relating to national mobilization and in the event of an atomic war.

The committee also may be given the added responsibility of advising Selective Service in the drafting of doctors.

Dr. Diehl attended a meeting of the committee in Washington Thursday and Friday, September 7 and 8.

## American Medical Association House of Delegates—Summary of Proceedings

San Francisco—June 26-30, 1950

### First Meeting, Monday, June 26

#### Morning Session

The House of Delegates convened in the Concert Room of the Palace Hotel, San Francisco, and was called to order at 10 a.m. by the Speaker, Dr. F. F. Borzell.

After preliminary proceedings including adoption of the minutes of the interim session, roll call, appointment of a Vice Speaker pro tem, in the absence of the Vice Speaker, invocation and the appointment of tellers for the session, the House heard the address of the speaker giving general directions for reference committees and delegates. He then presented the reference committees to the House.

The House then chose Dr. Everts A. Graham, St. Louis, as the recipient of the Distinguished Service Award for 1950. This was followed by the address of President Ernest E. Irons who summed up the progress made against infiltration of socialistic trends by saying, "We as physicians and citizens shall not relax until, with other patriotic groups in business, on the farm, in the other professions and labor, we shall have rolled back the socialist flood that threatens to engulf our American freedom and our solvency."

The Chairman of the Board of Trustees, Dr. Louis H. Bauer, presented the report of the Board. Ordinary income in 1949 exceeded costs and expenses by \$106,817.56; this amount was credited to the capital account of the Association, which now totals \$4,240,197.81.

The report of the Board of Trustees also included reports of, and concerning, the Committee on Displaced Persons, Committee on General Practice, Council on National Emergency Relief, Student American Medical Association, Commission on Chronic Illness, Co-ordination Committee on Legislation, Treasurer, Auditor.

All recommended resolutions were referred to reference committees.

Dr. Elmer L. Henderson, chairman of the co-ordinating Committee, presented the report of his committee.

This was followed by the report of the Council on Medical Service, given by Dr. James R. McVay.

Dr. Harvey B. Stone, acting chairman, presented the report of the Council on Medical Education and Hospitals.

The House recessed at 12:30 p.m.

#### Afternoon Session

The House reconvened at 1:45 p.m. and heard a supplemental report of the Board of Trustees, read by Dr. Bauer, which included the report of the Committee on Hospitals and the Practice of Medicine.

This was followed by a Report of the Committee on Chronic Diseases. In view of the work of the Commission on Chronic Illness, there had been suggestions that the functions and work of the two bodies had been overlapping. After hearing evidence of the necessity of both bodies, the House voted continuance of the committee.

The House then heard the proposed resolutions, all of which were referred to their respective reference committees for study and such committees will report the resolutions to the House for approval or rejection.

The House recessed at 3:45 p.m.

### Second Meeting, Tuesday, June 27

#### Afternoon Session

The meeting convened at 1:20 p.m. The House adopted a report of the Committee on Executive Session, which stated that an executive session to discuss a resolution on expenditure for advertising was not necessary.

Dr. Bauer read a message wishing the House a successful meeting from Dr. T. C. Routley, Secretary General of the Canadian Medical Association. The House requested the Secretary to wire appreciation to Dr. Routley.

The House recessed at 1:30 p.m.

### Third Meeting, Wednesday, June 28

#### Morning Session

The meeting reconvened at 9:10 a.m. The House adopted the report of the Reference Committee on Reports of Officers which included a recommendation from the Speaker's address that an interim committee on constitution and by-laws be appointed.

The House adopted a resolution eliminating oral reading of its voting, substituting the use of tellers' reports directly to the speaker who then announces the vote.

The House next considered the report of the Reference Committee on Reports of the Board of Trustees and Secretary. The report of the Board was considered by section:

Section 1. Financial statement—approved.

Section 2. Committee on Displaced Physicians—approved.

Section 3. Student American Medical Association—approved and established.

Section 4. Survey of Physicians' Incomes—approved with minor amendments.

Section 5. Surveys of Medical Education and Medical Practice in Great Britain—approved with commendation.

Section 6. Hearings on Taft and Hill Bills—approved.

Section 7. Resolution on Free Choice of Physicians for Federal Employees—approved recommendation for more study and information.

Section 8. Expansion of Washington Office—approved action to increase efficiency and continue implementation.

Section 9. Bulletin for Woman's Auxiliary—approved cancellation of bulletin.

Section 10. Treasurer's and Auditor's reports—approved.

Section 11. Quality of Medical Care in a National Health Program—approved Board's action in expressing strong opposition to the socialist blueprint for medical care of the recommendations of the Subcommittee on

## AMERICAN MEDICAL ASSOCIATION

Medical Care of the Committee on Administrative Practice of the American Public Health Association.

Section 12. Resolutions on Medical Care of Veterans—approved statement that this resolution reaffirms previous similar resolutions of the House in opposing unjustified care being given to non-indigent veterans for non-service-connected disabilities.

Section 13. Resolutions on Survey of Medical Service, Resolutions on Report of Committee on Hospitals and the Practice of Medicine, Resolutions on Enforcement of Principles of Medical Ethics and Resolutions on Practice of Medicine by Hospitals—approved all these resolutions having to do with the survey of medical services and the practice of medicine in hospitals.

Section 14. Report of the Committee on Hospitals and the Practice of Medicine—approved report which provides that if a physician is found to be unethical through proper authorities and is still retained on the staff of any hospital approved for resident or intern training, it shall be the duty of the Judicial Council to show cause why hospital should not be removed from the approved list, assuming the hospital is just as unfit for the training of physicians for unethical reasons as it is unfit if it does not have proper filing systems. The report also recommended recognition of the practice of anesthesiology, pathology, physical medicine and roentgenology as practice of medicine.

The House next considered the report of the Reference Committee on Medical Education which was adopted as a whole and recommended that particular specialties in which residents are being trained should be represented on the staff by well qualified people, whether or not they are members of "special societies and colleges or are certified in their specialty"; that it is not essential that all hospital residencies should adopt the same program, but it is essential that all hospitals participating in graduate training be able to meet fundamental essential requirements; that attendance at hospital staff meetings is not mandatory; that state medical societies be urged to use their influence with various state boards to give proportionate consideration to pediatrics as is given to other fields of medicine; that the practice of some hospitals making specialty board ratings a requirement for appointment or promotion be disapproved.

At this time Dr. Bauer announced that the Board of Trustees had extended the contract of Whitaker and Baxter for another year, stating, "We have very great hopes that we can carry on in a very greatly reduced tempo from what we have during the past year. On the other hand, we feel that it would be a great mistake to break up our organization which we have established and which has been so successful, because we don't know what may happen."

The House of Delegates heard the report of the Reference Committee on Sections and Section Work. The resolution requesting an appropriation for section delegates was referred to the Board of Trustees. The House approved recommendation that the Council on Scientific Assembly consider creation of a Section on Military Medicine and Surgery and a Section on Medicine in Industry.

The House next considered the report of the Reference Committee on Amendments to the Constitution

and By-Laws and approved appointment of an Interim Committee of the House of Delegates on Amendments to the Constitution and By-Laws; setting amounts of annual dues at the annual meeting; giving the Board of Trustees specific authority with respect to remission of membership dues; allowing Associate Fellows privilege to participate in the Scientific Assembly, without the right to vote or hold office; allowing member or service fellows, active members, associate, affiliate or honorary fellows, invited guests, medical students of approved schools, and interns and residents of approved hospitals to register.

The House next heard the report of the Reference Committee on Hygiene and Public Health and approved resolutions providing earlier detection of diabetes through self-testing for sugar; and earlier detection of cancer through use of all recognized facilities for the initial diagnosis, including examination of tissues, exudates and bodily excretions.

The House approved the resolution on Medical Relations in Workmen's Compensation reported by the Reference Committee on Industrial Health, providing: that the Council on Industrial Health investigate the present status of medical relations under the Workmen's Compensation laws of the states, territories and federal government and report back to the House of Delegates in June, 1951.

The House recessed at 12 noon.

### Afternoon Session

The House reconvened at 2:05 p.m. and considered the report of the Reference Committee on Legislation and Public Relations. The House approved a resolution opposing H.R. 5865, declaring "that it would place local health units in the country under substantially direct and complete control of the Surgeon General of the Public Health Service"; opposing again S. 1411 as long as Section C still remains in the bill. The House approved the committee's opinion that, as a general principle, the American Medical Association should not take a position favoring or opposing legislation which does not bear directly on medicine; approved expansion and strengthening of the Washington office; approved appointment of a committee to study the 12-Point program with the idea of making changes which may be indicated.

The House approved the report of the Committee on Training of Interns which recommended the inauguration of a 2-year rotating internship program covering the main branches of medicine, surgery, obstetrics and gynecology.

The House heard the report of the Reference Committee on Emergency Medical Service and approved a resolution urging immediate passage of Federal and state enabling legislation for a civil defense organization; a resolution urging appointment of a medical advisory committee to function at the top level of the Chairman of the National Security Resources Board.

The House next considered the report of the Reference Committee on Miscellaneous Business and approved resolutions providing better co-ordination of scheduling American Medical Association council meetings; continuation of National Education Campaign, endorsing work of the World Medical Association; declaring as ethical

## AMERICAN MEDICAL ASSOCIATION

for members to engage in lectures, demonstrations, the preparation of pamphlets and other measures suitable for the dissemination of information designed to prevent blindness and directed to any non-medical groups.

The House then heard the report of the Committee on Veterans Affairs. The resolution to recommend more stringent rules regarding treatment of non-service-connected illness was tabled.

Dr. Bauer explained an additional change necessary in the By-Laws concerning payment of dues and Fellowship classification, which was laid over for twenty-four hours to be brought up at the next meeting. Dr. Bauer also announced that the Clinical Session will be held in Cleveland, December 5 to 8.

The House then considered the report of the Reference Committee on Insurance and Medical Service. The House approved the report which provided recommendations of expansion of medical prepayment plans for graduate nurses; recommendation for further extension of service-connected medical care for veterans through existing channels and home-town medical programs; recommendation to the Council on Medical Service that detailed procedural directions be given for action on the local level; approval of the work of the Commission on Chronic Illness.

The House recessed at 4:10 p.m.

### Fourth Meeting—Thursday, June 29

#### Afternoon Session

The House reconvened at 1:30 p.m. and heard the report of the Reference Committee on Emergency Medical Service and approved a resolution recommending continued co-operation with the medical services of the Armed Forces and the National Security Resources Board to the end that the most effective utilization of medical personnel be achieved for the maximum protection of the nation.

The House adopted an amendment to the By-Laws providing that dues shall include subscription to *The Journal of the American Medical Association* beginning January 1, 1951.

The proposed change in the By-Laws regarding classification of fellows was referred to the Interim Committee on Amendments to the Constitution and By-Laws for study and report at the Clinical Session in Cleveland.

The House approved membership dues for 1951 at \$25.00.

The House instructed the Secretary and General Manager to have the report of the Reference Committee on Reports of Board of Trustees and Secretary mimeographed and mailed to each member of the House of Delegates at the earliest possible time.

The House passed a resolution requesting the Board of Trustees to expedite adequate appropriations by the Congress to help control tuberculosis among the Indians.

The House heard the address of Rear Admiral Joel T. Boone, United States Navy.

The election of officers followed:

President-Elect—John W. Cline, M.D., San Francisco, California.

Vice President—R. B. Robins, M.D., Camden, Arkansas.

Secretary—George F. Lull, M.D., Chicago.

The House heard addresses by Dr. Cline and Dr.

Robins and then elected Dr. Josiah J. Moore, Chicago, as Treasurer, and Dr. F. F. Borzell, Philadelphia, as Speaker, both succeeding themselves.

Dr. James R. Reuling, Bayside, N. Y., was elected Vice Speaker.

The House elected two new trustees: Dr. Thomas P. Murdock, Meriden, Conn., to succeed Dr. James R. Miller, Hartford, and Dr. L. W. Larson, Bismarck, N. D., to succeed Dr. John H. Fitzgibbon of Portland, Oregon.

The speaker appointed the following as members of the Interim Committee on Amendments to the Constitution and By-Laws: Drs. Joseph D. McCarthy, Omaha; Floyd S. Winslow, Rochester, N. Y.; B. E. Pickett, Sr., Carrizo Springs, Texas; Louis A. Buie, Rochester, Minn., and Stanley H. Osborn, Hartford, Conn.

Dr. Bauer announced that the annual session for 1951 will be held in Atlantic City, N. J., and that the 1952 session will be held in Chicago. The House heard the invitation of New York City, given by Dr. J. Stanley Kenney, to hold the 1953 session there. Ballots were spread.

Dr. Louis A. Buie, Rochester, Minn., was elected to succeed himself for five years as a member of the Judicial Council, Dr. J. B. Lukins, Louisville, Ky., was also elected a member.

Dr. Edgar V. Allen, Rochester, Minn.; Dr. James Stevenson, Tulsa, Okla., and Dr. Julian P. Price, Florence, S. C., were appointed as members of the Committee on Distinguished Service Awards, Dr. Allen as chairman.

Dr. Henry R. Viets, Boston, was elected to succeed himself as a member of the Council on Scientific Assembly and Dr. Russell L. Haden, Crozet, Va., was elected to succeed himself as a member of the Council on Medical Education and Hospitals.

Dr. George F. Lull, Secretary, presented the names of applicants for Associate Fellowships. Minnesota Associate Fellowships were granted to: Nellie O. N. Barsness, St. Paul; Edgar D. Brown, Paynesville; Frank D. Gray, Marshall; J. C. Hultkrans, Minneapolis; Oscar F. Mellby, Thief River Falls; F. P. Stratherm, St. Peter.

The House voted, by plurality, that the annual session for 1953 be held in New York City.

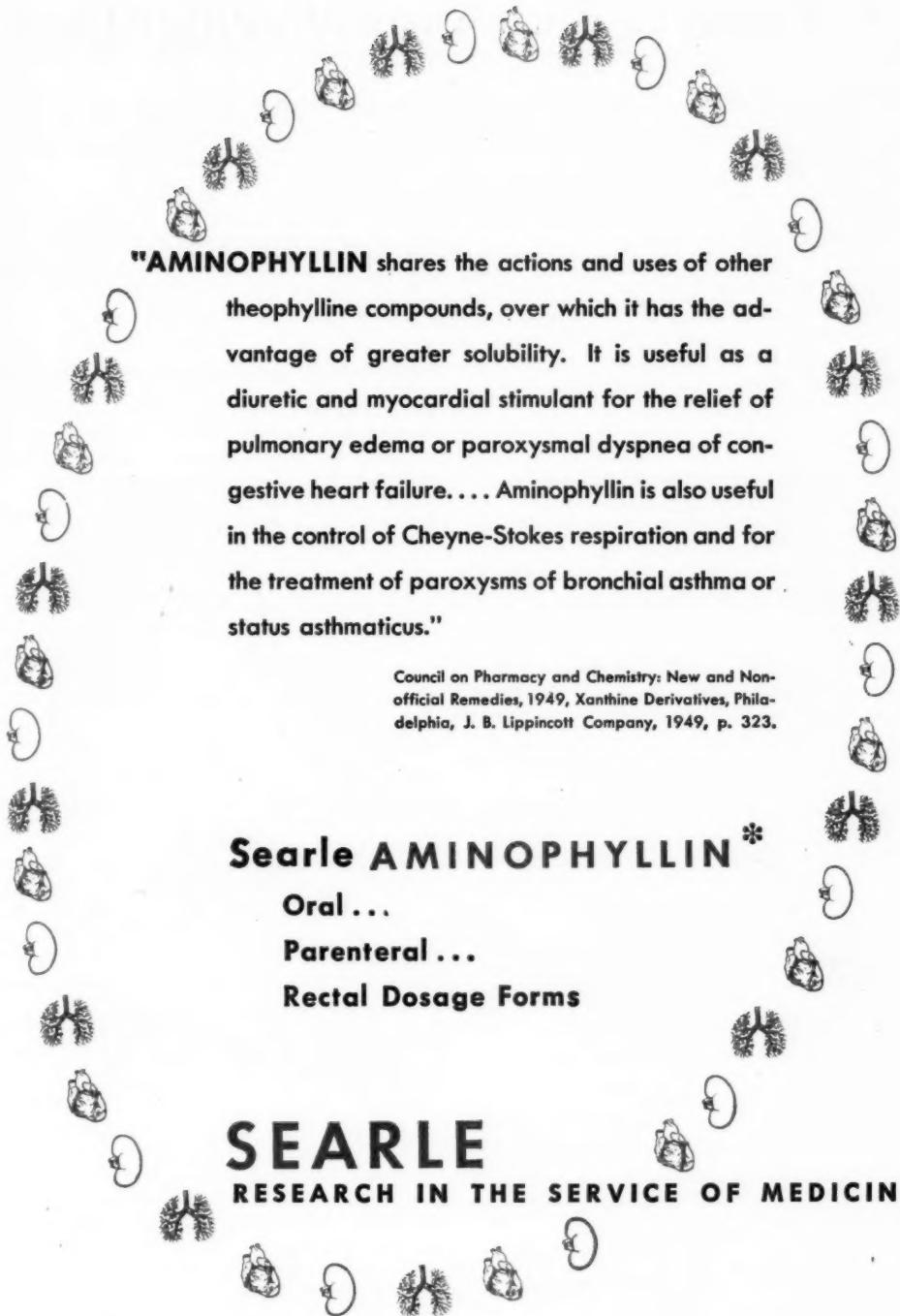
Dr. James R. McVay, Kansas City, Mo., was elected by acclamation to succeed himself on the Council on Medical Service, and the ballot was spread to elect a successor to Dr. Jesse D. Hamer, Phoenix, Ariz.

Dr. Bauer introduced Dr. Pedro Nogueira, Secretary of the Cuban Medical Association, who brought greetings from his country, and Dr. Jose Angel Bustamante, Secretary of the Pan-American Medical Association, who also brought greetings.

The House passed a resolution of appreciation to the State of California, the San Francisco County Medical Association and the California Medical Association, and a resolution of appreciation to the city of San Francisco.

Dr. Jesse D. Hamer was elected to succeed himself as a member of the Council on Medical Service.

The House of Delegates to the American Medical Association adjourned at 3:30 p.m.



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Council on Pharmacy and Chemistry: New and Non-official Remedies, 1949, Xanthine Derivatives, Philadelphia, J. B. Lippincott Company, 1949, p. 323.

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## ♦ Reports and Announcements ♦

### AMA CLINICAL SESSION

The fourth clinical session of the AMA, designed primarily for the general practitioner, will be held in Cleveland, December 5 through 8. The scientific sessions and the scientific exhibits will be presented in the Cleveland Municipal Auditorium. The House of Delegates will meet at the Statler Hotel.

Outstanding clinical teachers will appear on the program. Clinical sessions will be limited to an attendance of 100 physicians. Obstetric, pediatric and geriatric problems, traumatic surgery, cancer and diabetes will be among the subjects of interest to the general practitioner which will be discussed. This midyear meeting aids the general practitioner in keeping abreast of medical progress.

### AMERICAN COLLEGE OF CHEST PHYSICIANS

The fifth annual Postgraduate Course in Diseases of the Chest, sponsored by the Council on Postgraduate Medical Education and the Illinois State Chapter of the American College of Chest Physicians, with cooperation of the members of the staffs of the medical schools and hospitals of Chicago, will be held at the St. Clair Hotel, Chicago, October 16 through 20.

Addresses on medical and surgical phases of chest diseases will be given at the morning and afternoon sessions, with round-table discussions each noon. The evening of October 19 will be given over to a banquet, to be followed by a meeting of the Illinois chapter of the College.

The number of registrants for the course is limited. Applications, with a remittance of \$50, should be sent to the American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

### AMERICAN COLLEGE OF PHYSICIANS

The Midwest Regional Meeting of the American College of Physicians will be held at the Memorial Union Theatre on the campus of the University of Wisconsin in Madison, Wisconsin, Saturday, November 18, 1950. Physicians of Minnesota, Illinois, Indiana, Iowa, Ohio, Michigan and Wisconsin, whether members of the College or not, are urged to attend.

Registration at 8 A.M. will be followed by fifteen-minute papers on a wide variety of medical subjects, the afternoon session terminating at 5 P.M. A social hour follows at 5:30 P.M. In addition, a scientific exhibit will be presented in the foyer of the Memorial Union Theatre.

For further information, address Dr. H. M. Coon, 1300 University Avenue, Madison 6, Wisconsin.

### AMERICAN COLLEGE OF SURGEONS

A sectional meeting of the American College of Surgeons will be held in St. Louis on January 22 and 23. All physicians who wish to attend are invited. A regis-

tration fee of \$5 for nonmembers can be expected. Minnesota is included among the midwestern states in the section of the country for which this meeting has been arranged.

Headquarters will be at Hotel Statler, and an extra day of operative clinics will be conducted in addition to the two days of addresses. Further information can be obtained from Dr. Barrett Brown, 400 Metropolitan Building, Grand Avenue and Olive Street, St. Louis 3, Missouri.

### NATIONAL GASTROENTEROLOGICAL ASSOCIATION

The National Gastroenterological Association will hold its fifteenth annual convention and scientific sessions at the Hotel Statler in New York City, October 9 through 11.

At the annual banquet of the Association, to be held at the Hotel Statler on October 10, the winner of the National Gastroenterological Association 1950 Prize Award Contest for the best unpublished contribution on gastroenterology and allied subjects, will receive the prize of \$100 and a certificate of merit.

Immediately following the convention, the Association is conducting a course in postgraduate gastroenterology at the Hotel Statler in New York City on October 12 through 14.

Further information concerning the program and details of the course may be obtained by writing to the Secretary, National Gastroenterological Association, 1819 Broadway, New York 23, N. Y.

### VAN METER PRIZE AWARD

The American Goiter Association again offers the Van Meter Prize Award of \$300 and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The award will be made at the annual meeting of the Association which will be held in Columbus, Ohio, May 24, 25 and 26, 1951, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations, should not exceed three thousand words in length, must be presented in English, and a typewritten double spaced copy in duplicate sent to the Corresponding Secretary, Dr. George C. Shivers, 100 East Saint Vrain Street, Colorado Springs, Colorado, not later than March 1, 1951. The committee who will review the manuscripts is composed of men well qualified to judge the merits of the competing essays.

A place will be reserved on the program of the annual meeting for presentation of the Prize Award Essay by the author, if it is possible for him to attend. The essay will be published in the annual Proceedings of the Association.

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### MINNESOTA PUBLIC HEALTH CONFERENCE

Physicians and health officers of Minnesota municipalities will meet on September 25 and 26 in the Hotel Nicollet in Minneapolis to discuss general sanitary problems of municipalities. This meeting is being held in conjunction with the fourth annual meeting of the Minnesota Public Health Conference, an organization with a membership of over 600 lay and professional health workers in Minnesota.

Authorities on sanitary problems will join with the health officers and physicians in discussions of municipal solutions of waste disposal, rodent control and other problems. The conference is also featuring a second day full program of interest to physicians. Mary Switzer of the Federal Security Agency will report on the activities of the World Health Organization. A general afternoon session features a discussion of health problems in industry, the use of mass media to get a message across to people, and techniques used in social welfare to win public support of the programs. The banquet session of the program features an address by Dr. William Sheppard of the Metropolitan Life Insurance Company, who is president elect of the American Public Health Association.

All physicians and health officers in Minnesota are invited to attend the two-day program which brings together all health interests in Minnesota.

### CONTINUATION COURSES

*Cortisone and ACTH.*—The University of Minnesota announces a continuation course for physicians on cortisone and ACTH to be presented at the Center for Continuation Study on October 4.

Subject matter for the course will include pituitary-adrenal interrelationships, the alarm reaction, and tests of adrenal cortical function. The use of cortisone and ACTH in allergic states, rheumatic fever, rheumatoid disease, and eye disorders will highlight the therapeutic section of the course.

Faculty for the course will include members of the staffs of the Mayo Clinic and the University of Minnesota Medical School.

*Medical Technologists.*—The University of Minnesota announces a continuation course for medical technologists on October 10 and 11. The course will be presented at the Center for Continuation Study and will be devoted to problems in clinical chemistry. Among the subjects to be discussed will be the reliability and validity of methods in clinical chemistry, the use of the flame photometer and spectrophotometer, technique and interpretations of liver function tests, plasma protein determination, and serum cholesterol determination, techniques, and interpretation. The visiting faculty member for the course will be Dr. Olaf Michelsen, biochemist of the Division of Chronic Disease of the United States Public Health Service. Members of the faculty of the University of Minnesota will complete the staff for the course. Graduates in technology are eligible to attend.



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## HAZELDEN FOUNDATION

The constructive thinking of a group of Twin Cities men seeking a new approach to the problem of alcoholism resulted in the organization of the Hazelden Foundation. Some of the founders are themselves men who have recovered from alcoholism through the proved program of Alcoholics Anonymous. Their true understanding of the problem has resulted in the treatment procedures used at the Hazelden Foundation.

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## REPORTS AND ANNOUNCEMENTS

### POSTGRADUATE SEMINARS

Two preliminary planning meetings for the conduct of professional postgraduate seminars were held recently. On July 26 members of the different professions, as well as interested lay persons, met at the St. Francis Hospital, Crookston, to discuss plans for the forthcoming seminar.

Dr. R. O. Sather of Crookston, secretary of the Red River Valley Medical Society, and Dr. O. K. Behr, also of Crookston, represented the local medical profession.

Dr. R. E. Siman and Dr. H. F. Jung were there representing the dental group. Miss Margaret Sherman, Miss Ruby Gregerson, Miss Blanche Ingvalson, Mrs. Eva Brown, and Miss Ida Twedten were from the nursing profession.

Dr. George N. Aagaard, director of postgraduate medical education at the University of Minnesota; Mr. Thomas A. Morrow, executive secretary of the Minnesota Heart Association; Dr. William A. Jordan, director, Division of Dental Health, and Mr. E. W. Eagle, pharmacist in Crookston, were also present. Sister Mary Charitas, as administrator, represented St. Francis Hospital.

The Crookston seminar, scheduled for September 13 to November 1, is a joint undertaking of the University of Minnesota Medical School, the Minnesota State Medical Association, and the Minnesota Department of Health. It is one of six planned for Minnesota communities during the 1950-51 season.

On July 27 a similar planning meeting for a seminar to be held at Virginia was conducted at the Virginia Municipal Hospital. This seminar, with the same sponsors, will start September 21 and end November 9.

Dr. J. A. Malmstrom, president, Range Unit of the St. Louis County Medical Society; Dr. E. N. Peterson, chief of staff, Virginia Municipal Hospital; Dr. R. P. Pearsall, city health officer, Virginia, Minnesota; and Dr. N. M. Strandfjord represented the physicians. Dr. L. C. Krause represented the dental profession.

Mrs. Inez Christen, president, Tenth District Minnesota Nurses Association; Mrs. Madeline Takala, St. Louis County public health nurse, Virginia; Miss Esther Hakko, St. Louis County public health nurse, Virginia; and Mrs. Barbara Rodorigo, St. Louis County P.H.N., Virginia, Minnesota, were present for the nursing group.

Dr. George N. Aagaard, Mr. Thomas A. Morrow, Dr. William A. Jordan, and Mr. Charles C. Crosby, pharmacist from Virginia, were present. Mr. John Alexon, superintendent, represented the Virginia Municipal Hospital.

The other seminar areas, together with approximate attendance dates in 1951 are:

Moorhead	January 3 to February 21
Willmar	January 11 to March 1
Worthington	March 6 to April 24
Albert Lea	March 14 to May 2

(Continued on Page 940)



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## REPORTS AND ANNOUNCEMENTS

### POSTGRADUATE SEMINARS

(Continued from Page 938)

The seven courses held throughout the state in 1949-50 were extremely well received, and professional attendance and interest was excellent.

Heart disease, cancer control and mental health will be the subjects of this year's programs. Latest information on the diagnosis, treatment, and management of diseases in these three fields will be presented by leading medical lecturers from the University of Minnesota Medical School. Professional films and literature will in some instances be used to augment the speakers.

Each seminar, as last year, will consist of eight consecutive weekly meetings, with each session about two hours long. Ordinarily two speakers, each on a different subject matter, will appear.

There is no charge for this series of lectures unless local physicians voluntarily assess themselves \$2 each to obtain a certificate of attendance.

County medical societies are actively co-operating in the organization and conduct of these significant medical education events.

Coinciding with these medical seminars, dentists and nurses of the area will hold eight sessions of their own, patterned generally after the physician's courses, with subject matter tailored to their specific interests. The University of Minnesota Schools of Dentistry and Nursing, the Minnesota State Dental Association, the Minne-

sota State Nurses Association, and local dental and nursing groups sponsor the seminars.

Other co-sponsors of the seminars are the Minnesota Division of the American Cancer Society, the Minnesota Heart Association, and the Minnesota Mental Hygiene Society.

### LYON-LINCOLN MEDICAL SOCIETY

The forty-second semi-annual clinic course of the Lyon-Lincoln County Medical Society began on September 5 and will end on October 10. All meetings are held at the New Atlantic Hotel in Marshall and begin with dinner at 6:30 p.m. The program for the course is as follows:

- Sept. 5—"Diagnosis and Treatment of Head Injuries"—Dr. Wallace P. Ritchie, Saint Paul.  
Sept. 12—"Some Practical Aids in Prolonged Labor"—Dr. E. A. Banner, Rochester.  
Sept. 19—"Psychosomatic Medicine"—Dr. Gordon Kamman, Saint Paul.  
Sept. 26—"Emergency Surgery of the Abdomen"—Dr. O. H. Beahrs, Rochester.  
Oct. 3—"Cardiovascular Renal Emergencies"—Dr. T. W. Parkin, Rochester.  
Oct. 10—"Rheumatic Fever in Children with Special Emphasis on the Differential Diagnosis"—Dr. Albert Stoesser, Minneapolis.

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1. Beckman, H.: Treatment in General Practice. Philadelphia, Saunders, 5th ed., 1946, 704-705.
2. Beckman, H.: Treatment in General Practice. Philadelphia, Saunders, 6th ed., 1948, 744.

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## In Memoriam

### FRANK J. BRABEC

Dr. Frank J. Brabec, a practitioner at Perham, Minnesota, since 1893, died July 29, 1950, at the age of eighty-one.

Dr. Brabec was born at Watertown, Minnesota, January 31, 1869. He received his medical degree from the University of Minnesota in 1893. After graduation, he took his internship at Asbury Hospital, Minneapolis, and St. Joseph's Hospital, Saint Paul. On his return trip from Butte, Montana, where he had accompanied Dr. Charles Wheaton of Saint Paul to assist in an operation on Senator Carter of Montana, the train was delayed at Perham and Dr. Brabec was so impressed with the surrounding country that he decided to practice there.

Dr. Brabec was instrumental in persuading the Franciscan Sisters to establish a hospital at Perham. He also donated a farm to the village for the benefit of a library addition.

Dr. Brabec is survived by his wife; two sons, Dr. Leonard Brabec, an educator in New York, a child by his first wife who died a number of years ago, and Dr. Paul Brabec of Forsythe, Montana, and a daughter, Katheryn, of Saint Paul.

He was a former member of the Park Region Medical Society, the Minnesota State Medical Association and the American Medical Association.

### KENNETH G. WILSON

Dr. Kenneth G. Wilson, formerly of Minneapolis, died at Laguna Beach, California, June 19, 1950, at the age of thirty-four.

Dr. Wilson was born in Minneapolis, August 27, 1915. He attended Washburn High School in Minneapolis and received the degree of B.S. from the University of Minnesota in 1938 and an M.D. in 1940. After interning at St. Luke's Hospital in San Francisco, he took post-graduate work at the Mayo Foundation specializing in aeronautical medicine.

During World War II, he was a flight surgeon at General Motors bomber plant, Cleveland, and at Consolidated Vultee Corporation, San Diego, California. He was a member of Psi Upsilon and Nu Sigma Nu fraternities.

Dr. Wilson is survived by his parents, Mr. and Mrs. Alfred E. Wilson of Minneapolis, a brother, John R., of San Francisco and a sister, Mrs. Cora J. Compton, of Minneapolis.

My duty (men have duty; and, if I would be a man, Then I must bow to duty) is to do the best I can, In ev'ry way, and ev'ry day, till I grow big enough To realize the best of men are diamonds in the rough. Time has a way of telling man its truths before he dies; He profits most who serves the best. My job—there it lies.

—LARRY FLINT

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## ♦ Of General Interest ♦

The annual Leo G. Rigler lecture in radiology will be given at the University of Minnesota on November 2 by Dr. Knut Lindblom of the Karolinska Institute in Stockholm, Sweden. Dr. Lindblom will speak on "Backache" at 8:15 p.m. in the amphitheater of the University Medical Sciences Building. The lecture will be given in connection with a course in neuro-radiology held October 30 through November 3 at the University Center for Continuation Study.

\* \* \*

**Dr. L. E. Steiner**, Albert Lea, was elected secretary of the Freeborn County Medical Society at the June 1 meeting of the organization. He succeeds Dr. E. S. Palmerton, who is taking a residency at the University Hospitals.

\* \* \*

**Dr. William S. Chalgren** opened an office in Mankato on July 1 for the practice of neurology and psychiatry. A graduate of the University of Minnesota Medical School in 1943, Dr. Chalgren served his internship and a residency in neuropsychiatry at the University Hospitals. After a period of service in the Army, he returned to the University department of neuropsychiatry, and in 1949 he received a Ph.D. degree in neurology and was certified by the American Board of Psychiatry and Neurology. Formerly an assistant professor of neuropsychiatry at the University, he is now on the staff as a clinical assistant professor. He is also consultant in neurology at the St. Cloud Veterans Hospital and consultant in neuropsychiatry at the Nicollet Clinic, Minneapolis.

\* \* \*

**Dr. and Mrs. John Briggs**, Saint Paul, left on August 21 to attend the International Congress of Cardiology, scheduled to open in Paris September 3. Dr. Briggs will address the International Congress of Chest Physicians at the Foralani Institute in Rome on September 20.

\* \* \*

**Dr. Burton C. Ostling** began the practice of medicine in Kerkhoven on August 1. A graduate of the University of Michigan, Dr. Ostling has practiced for a year at Hastings.

\* \* \*

Announcement of the appointment of **Dr. Robert B. May** as clinical director and assistant superintendent of the Fergus Falls State Hospital was made during the middle of July. At the time of the appointment Dr. May was serving in a similar capacity at the Willmar State Hospital.

Dr. May's previous experience includes work at the Hastings State Hospital in Nebraska and at the Grey-stone Park Hospital in Trenton, N. J. He has also been clinical director in one of the Maryland state hospitals and superintendent of the Eastern Shore State Hospital in Maryland.

\* \* \*

After almost a year without the services of a local

physician, Wanamingo acquired a resident physician late in July when **Dr. J. T. Boswell** opened offices there for the practice of medicine. A native of Oklahoma, Dr. Boswell served his internship at the U. S. Naval Hospital at Great Lakes, Illinois.

\* \* \*

**Dr. Paul Wendt**, formerly of Sauk Rapids, became associated with the Johnson Clinic in Thief River Falls early in July. A graduate of the University of Minnesota Medical School, Dr. Wendt recently completed his internship at the Milwaukee County Hospital, Wisconsin.

\* \* \*

**Dr. Virgil J. P. Lundquist** has opened offices at 829 Medical Arts Building, Minneapolis. He was recently affiliated with the University Hospitals and the Minneapolis Veterans Hospital.

\* \* \*

**Dr. J. A. Malerich** and **Dr. William T. Miller** have moved into new offices at 914 South Robert Street, West Saint Paul.

\* \* \*

**Dr. C. L. Roholt** left Waverly on July 21 to take a postgraduate course in general surgery in Chicago.

\* \* \*

It was announced on July 20 that **Dr. Francis J. Braceland**, Rochester, had been appointed chairman of the governor's advisory council on mental health. Dr. Braceland, chief of the psychiatric section of the Mayo Clinic, succeeds Dr. Alexander G. Dumas, Minneapolis, who resigned as chairman because of ill health. Dr. Dumas retains a seat on the council, however.

Dr. Braceland has been a member of the council since 1947. In 1949 he was named co-consultant to the Division of Public Institutions in the development of Minnesota's mental health program. He has been head of the section on psychiatry and the department of neurology and psychiatry at the Mayo Clinic since April, 1947.

\* \* \*

**Dr. F. C. Dolder** was presented with a lifetime membership in the Eyota Businessmen's Association at a meeting of the group in Eyota on July 13. Dr. Dolder was honored for his enthusiasm and activity in the association's projects during the past years.

\* \* \*

**Dr. David R. Philip** has become associated in practice with Dr. L. H. Hoyer in the Windom Clinic. Dr. Philip has had postgraduate training in obstetrics and pediatrics. He is a former resident of Mankato.

\* \* \*

It was announced on July 14 that **Dr. and Mrs. Louis H. Stahn** had returned from Spokane, Washington, and that Dr. Stahn planned to open an office for the practice of medicine in Minneapolis.

\* \* \*

Two new physicians have joined the staff of the Itasca Clinic. They are **Dr. Larry E. Karges**, lo-

(Continued on Page 946)

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## OF GENERAL INTEREST

(Continued from Page 944)

cated at Grand Rapids, and Dr. Roy R. Juntunen, who is with the clinic at Nashwaik. Both are graduates of the University of Minnesota Medical School. Dr. Karges interned at Ancker Hospital, Saint Paul, and Dr. Juntunen served his internship at St. Mary's Hospital, Duluth.

\* \* \*

Dr. O. L. McHaffie, Duluth, has been named St. Louis County Medical Society representative to the Duluth Rehabilitation Center board of directors.

\* \* \*

Dr. F. Donald Bucher opened offices for the practice of medicine in Starbuck on July 24. A graduate of the University of Nebraska, he served his internship at St. Joseph Hospital, Sioux City, Iowa. He has spent two years in service with the Navy.

\* \* \*

Dr. W. W. Will, Bertha, is one of several physicians to be heard on a special radio broadcast this fall sponsored by the University of Minnesota as part of its centennial celebration. On the broadcast, which has been tape-recorded, Dr. Will is interviewed as he describes his experiences as a "country doctor." He is also heard in a typical office interview with a person imitating a patient. The title of the broadcast is "Minnesota Mid-Century," and the interviews with physicians are part of the medicine and health portion of the program.

\* \* \*

Dr. Anthony L. Ourada, who recently completed a residency in surgery at Swedish Hospital, Minneapolis, began medical practice in Waseca on July 17. A graduate of the University of Minnesota Medical School in 1946, Dr. Ourada served his internship at St. Elizabeth's Hospital in Youngstown, Ohio. He then spent sixteen months in the Army in Germany.

\* \* \*

Dr. A. M. Ridgway, Annandale, said to be the oldest practicing physician in Minnesota, observed his sixtieth year of practice on July 15.

\* \* \*

Dr. Lewis Thomas, former professor of pediatrics and medicine at Tulane University, has been appointed to the American Legion memorial research professorship in rheumatic fever and heart disease at the University of Minnesota Medical School. The professorship was established through funds provided by the Minnesota American Legion and its auxiliary. Dr. Thomas, a graduate of Harvard University in 1937, will study causes and treatment of rheumatic fever and heart disease and will direct special research teams.

\* \* \*

Dr. and Mrs. R. V. Williams left Rushford on July 25 for a trip to Norway. They planned to spend two months visiting various points in Norway before returning to Rushford.

\* \* \*

Two physicians specializing in the practice of internal medicine opened a new medical office in Mankato on July 27. Dr. Robert H. Conley and Dr. Benjamin R. Guers, who had been in Mankato

since June, announced that their new offices had been completely remodeled and equipped.

Both physicians are graduates of the University of Minnesota Medical School and both recently completed three years of postgraduate work at the University Hospitals and Minneapolis Veterans Hospital. Dr. Conley served his internship at Rochester General Hospital, Rochester, New York, and then spent three years in the Navy. Dr. Guers interned at Ancker Hospital, Saint Paul, and served in the Army for three years.

\* \* \*

Dr. Bernard S. Nauth opened offices for the practice of medicine in Bemidji on July 31. A graduate of the University of Minnesota Medical School in 1941, Dr. Nauth served in the Army for two and one-half years. He spent the past five years as a general practitioner in the Winona Clinic.

\* \* \*

Dr. John R. Zell, a native of Mankato, has accepted an appointment for a three-year residency in neuropsychiatry at the United States Veterans Hospital at Coatsville, Pennsylvania. Dr. Zell recently completed his internship at the U. S. Naval Hospital in Philadelphia.

\* \* \*

Dr. Arthur H. Borgerson, Long Prairie, has been invited to speak at a meeting of the American Association of Blood Banks in Chicago October 12 through 14. He has been asked to describe the methods used in establishing a blood bank in Long Prairie, which was the first community in Minnesota, outside of the metropolitan centers, to set up such a blood bank system.

\* \* \*

On July 24 the residents of Northome could again obtain the services of a local physician after being without them for almost two years. On that day Dr. Gordon Franklin opened offices for the practice of medicine in Northome.

A native of Vernon Center, Dr. Franklin is a graduate of the College of Medical Evangelists. He interned at the Glendale Sanatorium and Hospital in Los Angeles and took additional training at St. Luke's Hospital, Saint Paul.

During the past two years Dr. Roger MacDonald of Littlefork served the Northome community two days each week.

\* \* \*

Dr. Yngve Hakanson, after a year and one-half of study in cell research and biochemistry at the Karolinska Institute in Stockholm, Sweden, joined the department of obstetrics and gynecology at the University of Minnesota on August 1.

\* \* \*

Dr. B. O. Mork, formerly of Worthington, has been appointed medical director of one of the Los Angeles eight public health districts. He will combine his new activities with his work on the faculty of the University of California at Los Angeles.

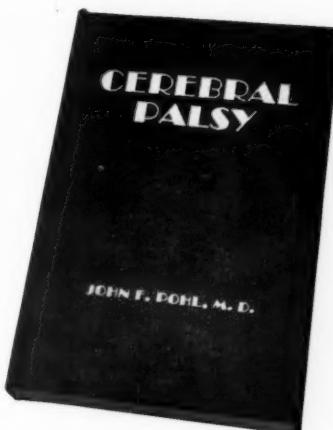
\* \* \*

Mrs. Horace Newhart, wife of the late Dr. Newhart, died in Minneapolis on August 14. Long active in

(Continued on Page 948)

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## OF GENERAL INTEREST

(Continued from Page 946)

church and women's groups, she was also president of the Minneapolis Society for the Hard of Hearing. She had been a director of Northwestern Hospital, Minneapolis, for more than forty years.

\* \* \*

On August 7 the Rochester city council approved a health department resolution hiring **Dr. George Williams**, Saint Paul, as psychiatrist with the department's counseling clinic. Dr. Williams, affiliated at present with the University of Minnesota, will replace Dr. Robert Fawcett as the clinic psychiatrist on January 1.

\* \* \*

**Dr. Wallace R. Anderson** joined the staff of the Austin Clinic on August 1. A graduate of the University of Minnesota Medical School, he interned at Minneapolis General Hospital, following which he took two years of postgraduate training in pediatrics. His practice at Austin will be limited to this specialty.

\* \* \*

**Dr. and Mrs. Rudolph B. Skogerboe** and family returned home to Karlstad on July 25 from a three-week vacation, two weeks of which were spent in New York and one at Lake Andrusia.

\* \* \*

**Dr. Nelson J. Bradley** has been appointed superintendent of the Willmar State Hospital, succeeding Dr. Stanley B. Lindley, who had resigned to join the staff of the Veterans Administration Hospital in Knoxville, Iowa. At the time of his appointment, Dr. Bradley was acting superintendent of the Hastings State Hospital, a position he had held since the former superintendent, Dr. Ralph Rossen, was appointed state mental health commissioner last January.

A graduate of the University of Alberta, Dr. Bradley has taken postgraduate work at the University of Minnesota. He joined the Hastings State Hospital staff in 1948.

\* \* \*

**Dr. Alphonse Cyr**, Barnesville, was appointed Clay County health officer at a commissioner's meeting in Moorhead early in July. Dr. Cyr replaces Dr. Olga H. Johnson, Moorhead, who resigned from the office.

\* \* \*

**Dr. Cherry B. Cedarleaf** has become associated in practice with Dr. L. H. Rutledge and Dr. C. W. Moberg in Detroit Lakes. A graduate of the University of Minnesota Medical School, Dr. Cedarleaf interned at the Waterbury Hospital, Waterbury, Connecticut, and then spent two years in resident graduate work at Northwestern Hospital, Minneapolis.

\* \* \*

**Dr. George W. Heine** became associated in practice with Dr. G. M. A. Fortier at the Little Falls Clinic on August 1. A graduate of the University of Minnesota Medical School in 1948, Dr. Heine interned at St. Luke's Hospital, Duluth, and then spent one year at the Oakland Naval Hospital.

\* \* \*

**Dr. and Mrs. Edmund Miller** and their son, Robert, returned home to Anoka in July from a trip to the West

Coast. While in California, Dr. Miller presented a paper on the care of tuberculosis patients in institutions at a meeting of the American College of Chest Physicians in San Francisco on June 25.

\* \* \*

**Dr. L. E. Gallett**, formerly of Pulaski, Wisconsin, has opened offices for the general practice of medicine at 2131 West Old Shakopee Road, Bloomington (Minneapolis). A graduate of the University of Wisconsin Medical School, Dr. Gallett practiced at Pulaski for eight years. He recently completed a year of postgraduate study in allergy at the Cook County Graduate School of Medicine.

\* \* \*

**Three Rochester physicians** will present papers at the eighty-fifth annual session of the Michigan State Medical Society in Detroit September 20 through 22. Dr. Louis A. Brunsting will speak on "The Present Status of the Syphilis Problem." Dr. John R. McDonald will discuss "The Clinical Importance of Early Cancer," and Dr. James T. Priestley's subject will be "Surgical Lesions of the Stomach."

\* \* \*

**Dr. David Hoehn** and his wife, **Dr. Bernice Andrews**, have replaced Dr. E. J. Schmitz in Holdingford. Dr. Schmitz gave up his practice to become a fellow in surgery at the University of Washington at Seattle. Graduates of the University of California in 1937, Dr. Hoehn and Dr. Andrews have practiced for nine years in the interior of Alaska, for two years in Tennessee, and for one year in North Dakota.

\* \* \*

Goodhue acquired a new physician early in July when **Dr. James W. Halvorson** opened offices there for the practice of medicine. A graduate of the University of Minnesota Medical School in 1948, Dr. Halvorson served his internship at St. Mary's Hospital in Winona. He then spent one year at the U. S. Naval Hospital at Great Lakes, Illinois.

\* \* \*

**Dr. Hendrik De Kruif**, formerly of Minneapolis, has moved to Fergus Falls and has become associated with the Fergus Falls Clinic.

\* \* \*

**Dr. Marshall J. Melius**, formerly of Saint Paul, joined the Henry Clinic in Milaca on August 7. A graduate of the University of Minnesota Medical School, Dr. Melius served his internship at the Milwaukee County Hospital, Wisconsin. He recently completed some postgraduate training at St. Joseph's Hospital, Saint Paul.

\* \* \*

The first meeting of the **Minnesota Clinic Managers** was held at the Androy Hotel in Hibbing on July 28 and 29. The organization consists of the managers of medical clinics in the state.

\* \* \*

**Dr. F. R. Ritzinger** has become associated in practice with the Rose and Doman Clinic in Lakefield. A graduate of the University of Illinois Medical School, Dr. Ritzinger served his internship at Ancker Hospital, Saint Paul. He has completed a one-year surgical residency at Miller Hospital, Saint Paul.

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It was announced late in July that Dr. John Reitmann had left his position at the Hastings State Hospital to become supervisor and chief medical officer at the Sandstone State Hospital.

\* \* \*

Dr. Anthony C. Gholz, a former resident of Worthington, has announced the opening of offices in association with Dr. William D. Cleland, Jr., in Port Huron, Michigan. Dr. Gholz is limiting his practice to pediatrics.

A graduate of the University of Minnesota Medical School, Dr. Gholz recently completed a residency at the Children's Hospital, Detroit, Michigan.

\* \* \*

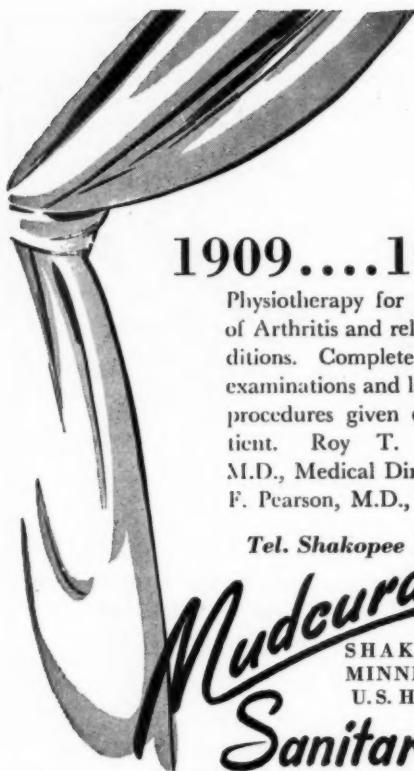
The Clarkfield Clinic announced late in July that Dr. Curtis M. Johnson, of Jackson, would join its staff about September 1.

SEPTEMBER, 1950

The National Committee for a Free Europe, Inc., is an organization of public-spirited American citizens who operate Radio Free Europe as an independent counterpart of the government-operated Voice of America. Unhampered by government control, Radio Free Europe broadcasts anti-Communist programs from a short-wave transmitter beamed from western Germany to behind the Iron Curtain. The freedom station carries the voices and messages of exiled leaders back to the satellite countries from which they escaped.

The National Committee for a Free Europe is sponsoring a Crusade for Freedom, to be undertaken this fall to enroll Americans on Freedom Scrolls, which will be permanently enshrined in the base of a ten-ton Freedom Bell to be hung in Berlin next October.

OF GENERAL INTEREST



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SURGERY—Intensive Course in Surgical Technic, Two Weeks, starting September 25, October 23, November 27.  
Surgical Technic, Surgical Anatomy & Clinical Surgery, Four Weeks, starting September 11, October 9, November 6.  
Personal Course in General Surgery, Two Weeks, starting September 25.  
Surgery of Colon & Rectum, One Week, starting September 11, October 9.  
Esophageal Surgery, One Week, starting October 16.  
Breast & Thyroid Surgery, One Week, starting October 2.  
Thoracic Surgery, One Week, starting October 9.  
Gallbladder Surgery, Ten Hours, starting October 23.  
Fractures & Traumatic Surgery, Two Weeks, starting October 9.  
Basic Principles in General Surgery, Two Weeks, starting September 11.  
GYNECOLOGY—Intensive Course, Two Weeks, starting September 25, October 23.  
Vaginal Approach to Pelvic Surgery, One Week, starting September 8, November 6.  
OBSTETRICS—Intensive Course, Two Weeks, starting September 11, November 6.  
MEDICINE—Intensive General Course, Two Weeks, starting October 2.  
Gastro-enterology, Two Weeks, starting October 16.  
Gastroscopy, Two Weeks, starting September 11, October 23.  
Electrocardiography & Heart Disease, Four Weeks, starting October 2.  
DERMATOLOGY—Formal Course, Two Weeks, starting October 16. Informal Clinical Course every two weeks.  
UROLOGY—Intensive Course, Two Weeks, starting September 25.  
Cystoscopy, Ten-day Practical Course, starting every two weeks.  
General, Intensive and Special Courses in all Branches of Medicine, Surgery and the Specialties.

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The Mesaha Clinic staff was increased in July with the addition of Dr. Wesley Tomhave, who had just completed his internship at Minneapolis General Hospital. A graduate of the University of Minnesota in 1942, Dr. Tomhave served in the Navy for two and one-half years before returning to Minnesota to study medicine. He received his bachelor of medicine degree from the University Medical School in 1949.

\* \* \*

Dr. Hans Johnson was re-elected president of the Kerkhoven school board at the annual reorganization meeting on July 5. Dr. Johnson has held the office for many years.

\* \* \*

Physicians from five states announced on August 5 plans for a "mutual assistance disaster program" for exchange of whole blood and plasma in case of an atomic bombing. Meeting in Minneapolis, physicians from Minnesota, North and South Dakota, Iowa and Wisconsin emphasized the need for decentralization of blood collection so that if one center were destroyed by bombs supplies would be available elsewhere. A blood procurement and planning committee was organized to work on the problem.

\* \* \*

In Mankato, Dr. Roger G. Hassett has been occupying temporary quarters while work is progressing on his new medical center building. The project involves remodeling the present structure and constructing an 87-foot two-story addition. When completed, the center will contain offices for physicians, dentists and attorneys, as well as space for a commercial firm.

\* \* \*

It was announced on August 3 that two new physicians were moving to Pelican Rapids. Dr. Lawrence Pearson planned to arrive on September 1 to be associated in practice with Dr. H. A. Korda in the Pelican Valley Clinic. Dr. Pearson, who was graduated from the University of Minnesota Medical School and interned at Miller Hospital, Saint Paul, has practiced medicine at Warroad for the past nine years.

\* \* \*

Dr. H. K. Helseth, of Mott, North Dakota, and formerly of Fergus Falls, was also planning to move to Pelican Rapids as soon as suitable office space could be found.

\* \* \*

At a meeting of the Exchange Club in Winona on July 18, Dr. R. H. Wilson discussed the operational problems of the Winona General Hospital. He stated that hospital rates in Winona were high, not because of inefficient management or because somebody was trying to make a lot of money, but because of poor local patronage, inefficiency of the present physical plant, and lack of subsidization of any type. He suggested, as a solution, acquainting the public with the facts, constructing a new hospital, and converting the present structure to a convalescent and chronic disease home.

\* \* \*

Dr. Edwin J. Simons, prominent practitioner in Swanson for more than twenty-five years, has sold his practice to Dr. Edwin G. Knight, his associate for the past eight years, and has moved to Edina (Minneapolis).

OF GENERAL INTEREST

## An Observation on the Accuracy of Digitalis Doses

Withering made this penetrating observation in his classic monograph on digitalis: "The more I saw of the great powers of this plant, the more it seemed necessary to bring the doses of it to the greatest possible accuracy."<sup>1</sup>

To achieve the greatest accuracy in dosage and at the same time to preserve the full activity of the leaf, the total cardioactive principles must be isolated from the plant in pure crystalline form so that doses can be based on the actual weight of the active constituents. This is, in fact, the method by which Digilanid® is made.

Digilanid contains all the *initial* glycosides from Digitalis lanata in crystalline form. It thus truly represents "the great powers of the plant" and brings "the doses of it to the greatest possible accuracy".

The transfer of practice became effective September 1. During his years at Swanville Dr. Simons compiled an outstanding record of service to the public and to the medical profession. He has served as president of the Minnesota State Medical Association and the Upper Mississippi Medical Society. He was senior physician at the state tuberculosis sanatorium at Walker and served as chief of the medical services unit of the Minnesota Division of Social Welfare. He was one of the twenty-one state physicians who organized the Blue Shield medical insurance plan, and is still one of its directors. He is at present a trustee of the Minnesota Medical Foundation at the University of Minnesota. In addition to these duties he conducted his private practice at Swanville for over twenty-five years and even found time to serve as mayor for several years.

\* \* \*

Dr. E. M. James, who has opened a medical laboratory at 657 Lowry Medical Arts Building, Saint Paul, is also continuing his work as pathologist for St. Joseph's Hospital, Saint Paul.

\* \* \*

Dr. Justin C. Lannin, Mabel, was honored for his thirty-nine years of service at ceremonies held in Mabel on July 16 and attended by more than 1,000 persons. Dr. Lannin was presented with a scroll commemorating the occasion and was given luggage and a wrist watch by Mabel businessmen and other friends. Present during the ceremonies were Dr. Lannin's wife and his two sons, both physicians, Dr. Bernard G. Lannin and Dr. Donald R. Lannin, of Saint Paul.

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Average dose for initiating treatment: 2 to 4 tablets of Digilanid daily until the desired therapeutic level is reached.

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Also available: Drops, Ampuls and Suppositories.

1. Withering, W.: An account of the Foxglove, London, 1785.
2. Zimmerman, A. B.: Digilanid and the Therapy of Congestive Heart Disease, Am. J. M. Sc. 209: 33-41 (Jan.) 1945.

Literature giving further details about Digilanid and Physician's Trial Supply are available on request.

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A graduate of McGill University in Montreal, Canada, Dr. J. C. Lannin came to the United States in 1910 and located at Caledonia. After a year there, he moved to Mabel, where he has since practiced.

### HOSPITAL NEWS

At the organizational meeting of the medical staff of the new Zumbrota Community Hospital, held in Zumbrota on June 29, Dr. M. G. Flom was elected chief-of-staff, and Dr. Oliver E. H. Larson, secretary.

\* \* \*

First steps in the organization of a women's auxiliary unit for the new Community Memorial Hospital in Blue Earth were taken on July 21 when more than seventy-five women met at the hospital at the invitation of Mrs. Dora McKee, the superintendent. Following organization, the group planned to supply the various needs of the hospital. Its first project was to prepare new hospital linens. Future projects may include raising funds, providing volunteer workers, and canning food for hospital use.

\* \* \*

The Valleyview Hospital and Sanitarium near Jordan was dedicated on July 16. A chronic-disease institution, the hospital was renovated and remodeled through the efforts of Dr. Joseph C. Michael of Minneapolis.

\* \* \*

A meeting of men of the St. Wenceslaus parish in Jackson was held on July 23 to discuss the community hospital situation and to find ways to assist the Sisters of Charity in the operation of the Hal-

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**Ioran Hospital.** A committee was formed to try to solve the problem of the lack of proper facilities due to the hospital's crowded condition.

\* \* \*

Cornerstone-laying ceremonies for the new St. Louis County Infirmary, adjoining St. Luke's Hospital, Duluth, were held on July 18 by the Minnesota Grand Lodge of AF&AM. Among lodge officials taking part in the ceremonies was Dr. B. S. Adams, Hibbing, past grand master of the lodge.

\* \* \*

The blessing and dedication ceremony of the site for the St. John's Hospital, to be built at Red Lake Falls, was held on July 9. Among physicians taking part in the ground-breaking ceremonies were Dr. L. N. Dale, Red Lake Falls, and Dr. C. G. Uhley and Dr. O. K. Behr, both of Crookston.

\* \* \*

The dedication of the new St. Michael's Hospital in Sauk Centre was held on July 9. The size of the crowd attending the ceremonies, in spite of overcast skies, was estimated at from 3,000 to 5,000 persons. As principal speaker on the dedicatory program, Dr. Alfred W. Adson, Rochester, predicted that within five years the \$700,000 institution would be doubled in size. "Someone was smart," he stated, "when they planned this institution to provide for fifty additional beds. With an area serving 18,000 people, in five years you're going to need them."

\* \* \*

Three new operating rooms and one for application of casts have been constructed at St. Mary's Hospital, Rochester. The rooms include two for major and one for minor orthopedic surgery. Their construction is part of a \$215,000 renovation plan for the fifth and sixth floors of the hospital's east surgical wing. The addition of the four rooms brings the total of operating rooms at the hospital to twenty.

### BLUE SHIELD NEWS

During recent months members of the Blue Shield and Blue Cross staff have been invited to attend hospital staff meetings to discuss how the doctor can assist Blue Cross and Blue Shield. The purpose of such meetings has been to secure the full co-operation of staff physicians in correcting serious situations that have arisen regarding both non-profit plans. Due to the close affiliation of Blue Cross with Blue Shield, the physician's own plan of prepaid medical care, the problems which affect one plan will likewise affect the other. Blue Cross and Blue Shield cannot exist without the support and co-operation of the doctors and the hospitals. For the benefits of those who have not attended a hospital staff meeting where these problems have been discussed, briefly these are the problems.

Minnesota Blue Cross paid to hospitals for subscriber care approximately \$400,000 more in 1949 than was anticipated. The final analysis shows that this increase of hospital utilization was caused by various items. Perhaps the largest single item that affected this increase was the fact that many patients were being hospitalized solely for services which appear to be in many instances purely health examinations. It is



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realized that some of these hospitalized cases are a result of undue pressure placed on the doctor by the patient who feels that he has a hospital contract that does provide for diagnostic work. It was not the original intent of Blue Cross to provide for services of this type which in most instances do not require an overnight stay in the hospital and Blue Cross does not provide benefits for outpatient care except for accidents and minor surgery including such service which cannot be provided in the doctor's office. A new Blue Cross contract has been approved and will supersede the one now in existence. This contract excludes benefits for diagnostic work; however, it will not replace the present contract until the expiration date of each contract. In the meantime, we can only request the doctors to advise their patients that diagnostic services which do not require an overnight stay in the hospital should be done in the doctor's office or paid for by the patient if outpatient care is necessary in the hospital.

The Blue Cross problem is mainly that diagnostic cases are kept in the hospital over night whereas formerly they were outpatient cases.

The hospital drug bills for 1949 increased over 1948 by \$1.37 per case resulting in an over-all increase of \$200,000 for the year. Laboratory work increased \$1.47 per case or approximately \$210,000 for the year.

It is not the intent of either Blue Cross or Blue Shield to advise the medical profession or the hospitals as to how they should practice medicine or operate the hospitals. It is merely the intent to point out some of the situations that have arisen and ask the co-operation of the medical profession in attempting to eliminate abuses

so that the cost to Blue Cross can be reduced, and thereby keep the rates within the means of the low income groups of people. Many people have the erroneous impression that Blue Cross and Blue Shield lower the cost of medical care. They do not and cannot lower it one penny. They only spread it. Doctor Hawley, director of the American College of Surgeons, says: "The utilization rate of Blue Cross has been rising steadily for the past six or seven years. Also, during this same period, hospital charges have increased tremendously. So Blue Cross has been caught between the upper and nether millstones of spiraling costs and increasing utilization. We cannot keep this up forever. One of these days Blue Cross is going to be too expensive for poor people. When that day comes, we are going to have compulsory health insurance. Poor people can vote, you know, even if they cannot afford Blue Cross."

Both the Blue Cross and Blue Shield contracts specify that no allowance will be made for the treatment of any condition which was known by the subscriber or any of his family dependents to exist at the time the contract application is received in the Blue Cross, Blue Shield office until ten months after the contract has been in effect. It has been the policy of this office to consult the subscriber's physician regarding this information; it is believed that the physician is in the position to furnish such information and also that he would assist in governing the control of this factor which is of vital importance to the success of the Plans.

In some instances it is becoming increasingly difficult to obtain specific information. Much of the information relative to foreknown conditions is inclined to be vague

## OF GENERAL INTEREST

rather than specific enough to establish a date of knowledge of the condition. It is realized that in many instances it is difficult to make a definite statement concerning this matter; however, it is believed that the physician in obtaining a history is in a position to know whether that condition could or could not have been present for a specified length of time.

Information which is difficult to interpret could result in increased utilization. For example, if Blue Shield were to make allowances for ten cholecystectomies in the course of a month which rightfully should not be paid, utilization for that month would increase by \$1,250. This may not appear to be very much in an over-all picture of approximately \$200,000 allowed for a month; however, if this situation continues to increase it is easily possible to foresee an excessive increase in utilization. The same situation also applies to Blue Cross and it is reasonable to assume that if allowances were made on ten cholecystectomies the utilization would run from \$1,500 to \$2,000 per month. The co-operation of the medical profession in furnishing correct and specific information on this question is requested for it is assumed that the medical profession does not wish to place unnecessary burdens on these two non-profit plans.

Blue Shield payments for June totaled \$184,427.37 bringing the total for the first six months to \$954,685.20. Enrollment of new Blue Shield subscribers shows an increase for this year of 99,528, enrollment as of June 30, 1950 is 360,029. Blue Cross enrollment as of the same date totaled 1,033,139 participant subscribers. The average fee per Blue Shield claim for the first six months of 1950 is \$40.05 as compared with \$38.92 for

1949. June payments covered 4,788 Blue Shield claims; 23,385 claims were paid for the six month's period.

October will mark the opening of the second Blue Cross-Blue Shield non-group enrollment campaign which will run from October 1 through October 22, 1950. A total of 495 advertisements in twenty-six non-metropolitan (out-state) dailies, eighty-five county weeklies, the *Minneapolis Sunday Tribune* and the *St. Paul Sunday Pioneer Press* will tell the people of Minnesota why and how they should enroll in Blue Shield and Blue Cross. To create interest in the campaign and to help people in each area get information quickly since there is a definite time limit on the campaign, the doctors are being requested to display non-group literature and a poster in their waiting rooms.

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## BOOK REVIEWS

### BOOK REVIEWS

Books listed here become the property of the Ramsey, Hennepin and St. Louis County Medical Libraries when reviewed. Members, however, are urged to write reviews of any or every recent book which may be of interest to physicians.

**THE ESOPHAGUS AND PHARYNX IN ACTION.** William Lerche, M.D. Fellow American College of Surgeons; Founder Member and Honorary Member of the American Association for Thoracic Surgery; formerly Associate Professor of Surgery, University of Minnesota, Minneapolis. 222 pages. Illus. Price \$5.50, cloth. Springfield, Illinois: Charles C Thomas, 1950.

**THE ANTIHISTAMINES—THEIR CLINICAL APPLICATION.** Samuel M. Feinberg, M.D., Associate Professor of Medicine, Chief of Division of Allergy and Director of Allergy Research Laboratory; Saul Malkiel, Ph. D., M.D., Assistant Professor of Medicine Director of Research, Allergy Research Laboratory; Alan R. Feinberg, M.D., Clinical Assistant in Medicine, Attending Physician in Allergy Clinic. 291 pages. Illus. Price, \$4.00, cloth. Chicago: Year Book Publishers, 1950.

**PHYSICIAN'S HANDBOOK.** Sixth Edition. Marcus A. Krupp, M.D., Assistant Clinical Professor of Medicine, Stanford University School of Medicine, Director Clinical Pathology, Veterans Administration Hospital, San Francisco; Norman J. Sweet, M.D., Assistant Professor of Medicine, University of California School of Medicine, San Francisco; Ernest Jawetz, Ph.D., M.D., Associate Professor of Bacteriology and Lecturer in Medicine and Pediatrics, University of California School of Medicine, San Francisco; and Charles D. Armstrong, M.D., Clinical Instructor in Medicine, Stanford University School of Medicine. 380 pages. Illus. Price \$2.50, paper cover. Palo Alto, California: University Medical Publishers, 1950.

**SAINTS, SINNERS AND PSYCHIATRY.** Camilla M. Anderson, M.D., Assistant Clinical Professor of Psychiatry, University of Utah. 206 pages, including index. Price \$2.95. Philadelphia: J. B. Lippincott Company, 1950.

This is a well-written book in about the simplest and most understandable language possible, and can be highly recommended to general practitioners and to intelligent laymen.

It clearly describes the dynamics of behavior by showing how everyone has his individual self-image, both physical and psychological. This self-image is composed of many parts, and each part is conceived of as having both structure and function, that is, anatomy and physiology. Each organ does a specific job. Every character trait carries with it the expectation of a result to be obtained through the use of it.

The psychological self-image is formed early in life as a result of the child's experiences with the significant people in his environment. Once a character trait has been formed, that is, becomes structuralized, it becomes compulsive, and its functional results are taken for granted.

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Every individual has as his motivation as well as his road map for living, the maintenance of his self-concept, and lives out a compulsive and therefore unrealistic and neurotic pattern of behavior through his need to maintain his self-concept. As long as he can do this successfully, he feels comfortable. But whenever he feels that there is a threat to the integrity of any portion of his self-structure (physical or psychological), or whenever a part of his structure does not function in the anticipated manner, he will experience a psychic pain which is anxiety.

Whenever the structure of the psychological self-image is broken, the pain or anxiety felt is known as guilt (*sinners*).

Whenever the function of the psychological self-image is disturbed, the anxiety feeling aroused thereby is felt as helplessness, frustrated entitlement, or outraged virtue (*saints*).

Anxiety may be experienced in pure form, but more commonly in the form of one or more of three reactions: (1) reaction against or attack upon the anxiety-provoking situation with some degree of rage or resentment, (2) withdrawal from the situation or paralysis of all attack resources, (3) conversion of the attack forces into any type of physical symptom.

These reactions do not constitute the neurotic illness but are merely symptomatic of the presence of anxiety. The essence of neurosis may be found in one's self-concept, which in turn is to be found in one's assumptions, the things one takes for granted, one's beliefs. And the severity of the neurotic disability is determined not by the discrepancy between the assumptions and reality, but rather by the discrepancy between one's assumptions and the assumptions of culture with which one tries to identify.

Psychotherapy involves two processes. One, the clarification of the individual's assumptions; the other, establishment of new assumptions more realistically oriented. Mental health becomes a fact as habitual defense mechanisms are discarded and one can accept himself as he is (*psychiatry*).

HERBERT BUSHER, M.D.

HANDBOOK OF OBSTETRICAL AND DIAGNOSTIC GYNECOLOGY. Leo Doyle, M.S., M.D., 240 pages. Illus. Price \$2.00. Palo Alto, California: University Medical Publishers, 1950.

Dr. Doyle has organized a vast amount of obstetrical

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BOOK REVIEWS

and gynecological information in his handbook which can be used to refresh one's memory on a specific problem utilizing a minimum of time.

The book contains charts for normal hematological values, normal blood chemistry values, normal renal function and urine values, hematological changes during pregnancy, blood chemistry values during pregnancy, miscellaneous laboratory values, cardio-vascular changes during pregnancy, tables of approximate equivalents and an obstetrical calendar. The above information is on the inner side of the front and back covers.

There are two sections to the handbook. Section I has twenty-nine chapters; each chapter is in outline form, plus charts, pictures and diagrams regarding the specific problem of obstetrics under discussion. Section II contains ten short chapters on Diagnostic Gynecology. Space does not permit a detailed analysis of each chapter; however, the chapter regarding Emotional Aspects of Pregnancy is one which merits special citation. This phase of obstetrics is one which is often neglected in medical texts and not too seriously considered by busy practitioners.

The author has included standard obstetrical information and procedures in the text. He also describes some of his personal techniques and "tricks of trade."

The book is pocket size and could be used as a handy reference for emergency information, for hospital work, at home deliveries and at the office.

J. F. MELANCON, M.D.



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